Titan 9000

Multiviewing experience taken to the next level

Revision 1.0.0, (May, 2013)

AVITECH

ABOUT THIS MANUAL
This manual contains information on how to use Avitech Titan 9000.

Throughout the manual the following conventions are used to distinguish elements of text.

provides additional hints or information that requires special attention.

identifies warnings which must be strictly followed.

Any name of a menu, command, icon or button displayed on the screen is shown in a bold typeset. For example: On the **Start** menu select **Settings**.

To assist us in making improvements to this user manual, we would welcome any comments and constructive criticism. Email us at: sales@avitechvideo.com.

WARNING
Do not attempt to disassemble Titan 9000. Doing so may void the warranty. There are no user serviceable parts inside. Please refer all servicing to qualified personnel.

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Contents

About This Manual ii
Technical Support ii
Warranty v
Limitation of Liability v
Extended Warranty Options v
Services and Repairs Outside the Warranty Period v
Regulatory Information v
Federal Communications Commission (FCC) Statement v
European Union CE Marking and Compliance Notices v
Australia and New Zealand C-Tick Marking and Compliance Notice v

1. Getting Started 1
1.1 Package Contents 1
1.2 Product Features 3
1.3 Specifications 4
1.4 Connections to the Titan 9000 7

2. Hardware Configuration 11
2.1 Installing the Card 11

3. Phoenix-Q Configuration 13
3.1 Connection Method 13
3.2 Pinging the Titan 9000 13
3.3 Starting Up the Phoenix-Q Software 14
3.4 Obtaining the UMD (Under Monitor Display) Data from Router 19
3.5 Window Layout 22
3.5.1 Arranging Windows (by Group) 22
3.5.2 Resizing Window 23
3.5.3 Full Screen Mode; Swap Window Contents 23

4. Basic Setup Using the Phoenix-Q Software 26
4.1 File Menu 26
4.2 Edit Menu 28
4.3 View Menu 29
4.4 System Menu 32
4.5 Help Menu 45

5. Setting the Group/Card Properties 47
5.1 Copy Window Properties 57
5.2 Undo/Redo Changes 59
5.3 Align Windows 59
5.4 Copy Window Size 60

5.5 Start/Stop Alarm Sound and Special Layout 61
5.6 Setting Group Parameters 62
5.7 Briefing 65

Appendix A Using the LCD Panel **67**
A.1 Welcome Screen 67
A.2 Navigating the Main Menu 68
A.3 Navigating the System Parameters Menu 72

Appendix B Setting Up Static IP **75**
Method 1: Change the IP Address of the Titan 9000 Master Chassis 75
Method 2: Change the IP Address of the Controlling Computer 77
For Windows XP 77
For Windows 7 77

Appendix C Resetting to the Factory-Default State **78**

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If the Product proves to be defective during the 1 year warranty period, the purchaser’s exclusive remedy and Avitech’s sole obligation under this warranty is expressly limited, at Avitech’s sole option, to: (a) repairing the defective Product without charge for parts and labor; or (b) providing a replacement in exchange for the defective Product; or (c) if after a reasonable time is unable to correct the defect or provide a replacement Product in good working order, then the purchaser shall be entitled to recover damages subject to the limitation of liability set forth below.

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Regulatory Information

Marking labels located on the exterior of the device indicate the regulations that the model complies with. Please check the marking labels on the device and refer to the corresponding statements in this chapter. Some notices apply to specific models only.

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense. Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Avitech is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

European Union CE Marking and Compliance Notices Statements of Compliance

English

This product follows the provisions of the European Directive 1999/5/EC.

Dansk (Danish)

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC.

Nederlands (Dutch)

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

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Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

Français (French)

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

Deutsch (German)

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC.

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Italiano (Italian)

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Norsk (Norwegian)

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

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Este produto cumpre com as normas da Diretiva Européia 1999/5/EC.

Español (Spanish)

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

Svenska (Swedish)

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

Australia and New Zealand C-Tick Marking and Compliance Notice
Statement of Compliance

This product complies with Australia and New Zealand's standards for radio interference.

1. Getting Started

The **Titan 9000 Series** is a modular card based Multiviewer. Each card can receive up to four input signals and up to four cards can be installed in the 1RU chassis. Users can monitor four HDMI/DVI/VGA/ YPbPr sources via HD 1080p output.

The Titan 9000 allows for fully free-scaling windows. A high degree of flexibility is achieved through internal cascading. This flexibility allows all four cards (16 signals) to easily be displayed on one monitor, and/or be duplicated to other monitors. The Titan 9000 is also extremely scalable; users can easily expand the system by cascading up to 10 chassis which allows for the monitoring of up to 160 sources on one or multiple screens.

This chapter introduces the features and specifications as well as the external components of Titan 9000.

1.1 Package Contents

After unpacking the shipping carton, the following items can be found:

Avitech Titan 9000 series

Utility Disc (software and user manual)

24 V DC Power Adapter

Standard Power Cord (USA customer only)

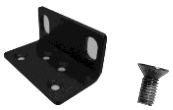
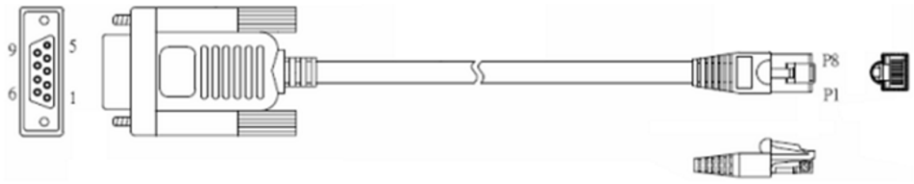
	
RS-485 Cascading Cable (optional – when purchasing 2 or more Titan 9000)	**Ear with screw (already installed on Titan 9000 upon order for assembly on to rack mount)**
DVI to HDMI® Adapter (optional)	**Proprietary RJ-45 to RS-232 (DB9-FM) Cable (optional) – see note below**

Table 1-1 Package Contents

Due to space limitation, the serial connector is replaced with a RJ-45 connector. A proprietary RJ-45 to RS-232 (DB9-FM) cable is needed for serial function. The pin definition is shown next.



DB9-FM		RJ-45	
Pin	Assignment	Pin	Assignment
1		1	Tx
2	Tx	2	Gnd
3	Rx	3	
4		4	Rx
5	Gnd	5	Gnd
6		6	
7		7	
8	5 V	8	5 V
9			

Figure 1-1 RJ-45 to RS-232 (DB9-FM) Cable Pin Definition

1.2 Product Features

- ✓ *Automatic sensing of up to 16 HDMI/DVIVGA/YPbPr input signals*
- ✓ *Independent operation, settings can be configured from the front LCD panel*
- ✓ *1920x1200 maximum output resolution*
- ✓ *Up to 14 presets/configurations can be saved and recalled per card*
- ✓ *Supports HDMI®, features 4 HDMI outputs*
- ✓ *Supports DVI, features 4 DVI outputs (via a HDMI to DVI adapter)*
- ✓ *Supports cascading, features an HDMI input for cascading*
- ✓ *Supports Avitech's Phoenix-Q configuration interface via Ethernet connection*
- ✓ *Supports TSL through serial interface (RS-232) or Ethernet (IP)*
- ✓ *Supports General Purpose Input/Output through Ethernet*
- ✓ *Supports Avitech ASCII Protocol (AAP) via Ethernet connection*

Robust Design:

- ✓ *Passed Extensive Vibration Test: (MIL-STD-810G vibration test) method 514.6 for US truck under random vibration while in operation*
- ✓ *Dual power supply with DC input (one main and one redundant, interchangeable)*
- ✓ *Field serviceable front fan module*

✓ *Video Control:*

1. *Free-scaling windows, quad view, full screen view, adjustable safe area, and aspect ratio control.*
2. *Picture-in-Picture (PiP) overlay display*
4. *Video loss detection*
5. *Image/Gain: automatic or manual adjustment*

✓ *On Screen Display (OSD):*

1. *Borders*
   - ✓ *Features fully customizable window borders (color and width)*
   - ✓ *Image borders*
2. *Labels*
   - ✓ *BMP label*
   - ✓ *UMD – (under monitor display)*
3. *Alarms*
   - ✓ *Video loss*
   - ✓ *Audio high*
   - ✓ *Audio low*
   - ✓ *Audio lost*
4. *Tally*
5. *Audio meter*
6. *Digital/analog clock / user logo*

7. External Linear Time Code (LTC)

8. Safe area, aspect ratio detection

9. Screen background color is configurable

✓ *Audio Output Control:*

1. Supports 8 channel embedded audio

2. HDMI: 8 channels selectable between the 4 groups

3. Analog: 1/8 inch stereo headphone jack for audio monitoring

4. Audio loss / audio high / audio low / phase detection

1.3 Specifications

Titan 9000 – (2H2V)	
Input	
HDMI **(HDMI type A)**	Automatic sensing, the following input signals are supported: ❖ *640x480, 60Hz/75Hz* ❖ *720×400, 70Hz* ❖ *800x600, 50Hz/60Hz/75Hz* ❖ *1024x768, 50Hz/60Hz/75Hz* ❖ *1280x960, 50Hz/60Hz* ❖ *1280x1024, 50Hz/60Hz/75Hz* ❖ *1360x765, 50Hz/60Hz* ❖ *1400x1080, 50Hz/60Hz* ❖ *1600x1200, 50Hz/60Hz* ❖ *1680x1050, 50Hz/60Hz* ❖ *1920x1080, 50Hz/60Hz* ❖ *1920x1200, 50Hz/60Hz*
DVI-I **(DVI-I connector)**	Automatic sensing, the following input signals are supported: ❖ *640x480, 60Hz/75Hz* ❖ *720×400, 70Hz* ❖ *800x600, 50Hz/60Hz/75Hz* ❖ *1024x768, 50Hz/60Hz/75Hz* ❖ *1280x960, 50Hz/60Hz* ❖ *1280x1024, 50Hz/60Hz/75Hz* ❖ *1360x765, 50Hz/60Hz* ❖ *1400x1080, 50Hz/60Hz* ❖ *1600x1200, 50Hz/60Hz* ❖ *1680x1050, 50Hz/60Hz* ❖ *1920x1080, 50Hz/60Hz* ❖ *1920x1200, 50Hz/60Hz* Transmission of audio signal is included when passing through the DVI port using the DVI to HDMI adapter.
VGA/YPbPr **(via adapter)**	Automatic sensing, via adapter in DVI-I IN port; input signals supported: ❖ *800x600, 50Hz/60Hz* ❖ *1024x768, 50Hz/60Hz* ❖ *1280x960, 50Hz/60Hz* ❖ *1280x1024, 50Hz/60Hz* ❖ *1360x765, 50Hz/60Hz* ❖ *1400x1080, 50Hz/60Hz* ❖ *1600x1200, 50Hz/60Hz*

	❖ *1680x1050, 50Hz/60Hz* ❖ *1920x1080, 50Hz/60Hz* ❖ *1920x1200, 50Hz/60Hz* Transmission of audio signal is not included when using the DVI to VGA, DVI to YPbPr adapters.
Output	
HDMI and DVI (via HDMI to DVI adapter)	Normal/VESA output timing; 8-bit/10-bit HDMI color depth; user configurable: ❖ *1920x1200 (WUXGA) 50Hz/60Hz* ❖ *1920x1080 (HD 1080) 50Hz/60Hz* ❖ *1680x1050 (WSXGA+) 50Hz/60Hz/75Hz* ❖ *1600x1200 (UXGA) 50Hz/60Hz/75Hz* ❖ *1600x900 (HD+) 60Hz* ❖ *1440x900 (WSXGA, WXGA) 50Hz/60Hz/75Hz* ❖ *1400x1050 (SXGA+) 50Hz/60Hz/75Hz* ❖ *1360x768 (WXGA) 50Hz/60Hz/75Hz* ❖ *1280x1024 (SXGA) 50Hz/60Hz/75Hz* ❖ *1280x768 (WSGA) 50Hz/60Hz/75Hz* ❖ *1280x720 (HD 720) 50Hz/59.94Hz/60Hz/75Hz* ❖ *1024x768 (XGA) 50Hz/60Hz/75Hz* ❖ *800x600 (SVGA) 50Hz/60Hz/75Hz* ❖ *640x480 (VGA) 60Hz* Transmission of audio signal is not included when passing through the HDMI to DVI adapter.

Table 1-2 Titan 9000 – (2H2V Card) Specifications

Titan 9000 – (4H)	
Input	
HDMI (HDMI type A)	Automatic sensing, the following input signals are supported: ❖ *640x480, 60Hz/75Hz* ❖ *720×400, 70Hz* ❖ *800x600, 50Hz/60Hz/75Hz* ❖ *1024x768, 50Hz/60Hz/75Hz* ❖ *1280x960, 50Hz/60Hz* ❖ *1280x1024, 50Hz/60Hz/75Hz* ❖ *1360x765, 50Hz/60Hz* ❖ *1400x1080, 50Hz/60Hz* ❖ *1600x1200, 50Hz/60Hz* ❖ *1680x1050, 50Hz/60Hz* ❖ *1920x1080, 50Hz/60Hz* ❖ *1920x1200, 50Hz/60Hz*
DVI-I (via adapter)	Automatic sensing, the following input signals are supported: ❖ *640x480, 60Hz/75Hz* ❖ *720×400, 70Hz* ❖ *800x600, 50Hz/60Hz/75Hz* ❖ *1024x768, 50Hz/60Hz/75Hz* ❖ *1280x960, 50Hz/60Hz* ❖ *1280x1024, 50Hz/60Hz/75Hz* ❖ *1360x765, 50Hz/60Hz* ❖ *1400x1080, 50Hz/60Hz* ❖ *1600x1200, 50Hz/60Hz* ❖ *1680x1050, 50Hz/60Hz*

	❖ *1920x1080, 50Hz/60Hz* ❖ *1920x1200, 50Hz/60Hz*

Output	
HDMI and DVI (via HDMI to DVI adapter)	Normal/VESA output timing; 8-bit/10-bit HDMI color depth; user configurable: ❖ *1920x1200 (WUXGA) 50Hz/60Hz* ❖ *1920x1080 (HD 1080) 50Hz/60Hz* ❖ *1680x1050 (WSXGA+) 50Hz/60Hz/75Hz* ❖ *1600x1200 (UXGA) 50Hz/60Hz/75Hz* ❖ *1600x900 (HD+) 60Hz* ❖ *1440x900 (WSXGA, WXGA) 50Hz/60Hz/75Hz* ❖ *1400x1050 (SXGA+) 50Hz/60Hz/75Hz* ❖ *1360x768 (WXGA) 50Hz/60Hz/75Hz* ❖ *1280x1024 (SXGA) 50Hz/60Hz/75Hz* ❖ *1280x768 (WSGA) 50Hz/60Hz/75Hz* ❖ *1280x720 (HD 720) 50Hz/59.94Hz/60Hz/75Hz* ❖ *1024x768 (XGA) 50Hz/60Hz/75Hz* ❖ *800x600 (SVGA) 50Hz/60Hz/75Hz* ❖ *640x480 (VGA) 60Hz*

Table 1-3 Titan 9000 – (4H Card) Specifications

Only 720p and 1080p 50Hz/60Hz output resolution is available when cascading.

Titan 9000 – (HOB)

Input	
	Automatic sensing from internal cascade, the following input signals are supported: ❖ *1280x720, 50Hz/60Hz* ❖ *1920x1080, 50Hz/60Hz*

Output	
HDBaseT (RJ45 connector)	For direct pairing between Titan 9000 – (HOB) and Seneca X-HDUR (sold separately); can be extended up to 100m (328ft).
DVI and HDMI (via DVI to HDMI adapter)	Supports all VESA output timing; 8-bit/10-bit HDMI color depth; user configurable: ❖ *1920x1200 (WUXGA) 50Hz/60Hz* ❖ *1920x1080 (HD 1080) 50Hz/60Hz* ❖ *1680x1050 (WSXGA+) 50Hz/60Hz/75Hz* ❖ *1600x1200 (UXGA) 50Hz/60Hz/75Hz* ❖ *1600x900 (HD+) 60Hz* ❖ *1440x900 (WSXGA, WXGA) 50Hz/60Hz/75Hz* ❖ *1400x1050 (SXGA+) 50Hz/60Hz/75Hz* ❖ *1360x768 (WXGA) 50Hz/60Hz/75Hz* ❖ *1280x1024 (SXGA) 50Hz/60Hz/75Hz* ❖ *1280x768 (WSGA) 50Hz/60Hz/75Hz* ❖ *1280x720 (HD 720) 50Hz/59.94Hz/60Hz/75Hz* ❖ *1024x768 (XGA) 50Hz/60Hz/75Hz*

Table 1-4 Titan 9000 – (HOB Card) Specifications

1. One Titan 9000 – (HOB card) can do 1x2 wall display.
Likewise, two Titan 9000 – (HOB cards) can do 2x2 wall display.
2. It is highly recommended to input at 1920x1080 and output at 1920x1080 resolution.

Titan 9000 – (Control card)	
Control interface (Ethernet/serial connector)	RJ-45 connector for connection to TSL port of the TSL controller for TSL interface via the proprietary RJ-45 to RS-232 (DB9-FM) cable
Cascade (HDMI Type A connector)	For multimedia input coming from HDMI Out port (cascadable to any other Titan 9000 – (2H2V) and Titan 9000 – (4H))
LTC (BNC connector)	Linear (or Longitudinal) Time Code input (encoding of SMPTE Time Code data in an audio signal)
Genlock (BNC connector)	Frame synchronizer (REF IN/OUT port) *Note: For model without genlock feature, these ports are not available*
Audio (Headphone jack)	Analog Audio (audio out port) Stereo
Power	Power consumption is 110 Watt (maximum) Power Supply: ❖ *24 V DC 120 Watt adapter*
Dimension/Weight	Dimension, 439×310×44.4 mm (17.3×12.2×1.8 inch) Weight, 4.2 kg (9.3 lb)
Environment/Safety	Temperature: ❖ *Operating: 0 ℃ (32 ℉) to 40 ℃ (104 ℉)* ❖ *Storage: –10 ℃ (14 ℉) to 50 ℃ (122 ℉)* Humidity, 0% to 80% relative, non-condensing Safety, FCC/CE/C-Tick/Class A Pass MIL-STD-810G test method 514.6 for US truck under random vibration while in operation

Table 1-5 Titan 9000 – (Control Card) Specifications

1.4 Connections to the Titan 9000

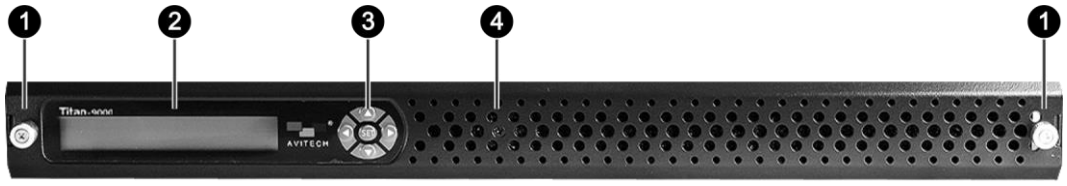


Figure 1-2 Titan 9000 Front Components

Front Panel	
❶ **Release Knob**	Turn the knob counter-clockwise to loosen and clockwise to secure the front panel to the chassis
❷ **LCD Panel**	For displaying the configuration and control parameters

Front Panel	
❸ **Control Buttons**	▲ Go to previous selection ▼ Go to next selection ◀ A quick press moves the cursor one character to the left, while a long press deletes the character to the left of the current cursor position (e.g., set password) ▶ Moves the cursor one character to the right. Upon reaching the last character, a space will be added (e.g., set password) SET Enter next menu level or select item
❹ **Release Screw**	Turn the screw counter-clockwise to loosen and clockwise to secure the front panel to the chassis

Table 1-6 Titan 9000 Front Component Description

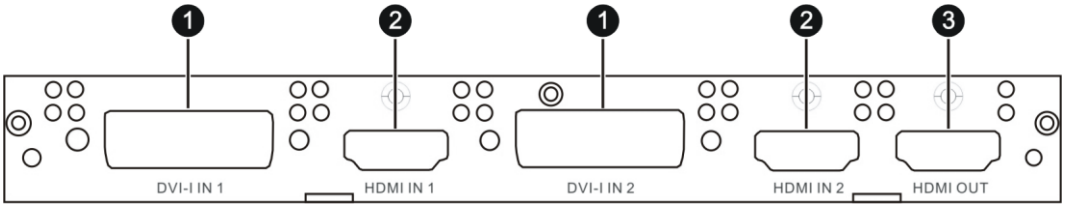


Figure 1-3 Titan 9000 – (2H2V Card) Components

Rear Panel	
❶ **DVI-I IN**	DVI connector for HDMI/DVI/VGA/YPbPr input sources (a DVI to HDMI adapter or DVI to VGA adapter or DVI to YPbPr adapter may be required) *Note: Transmission of audio signal is included when passing through the DVI port using the DVI to HDMI adapter but is not included when using the DVI to VGA, DVI to YPbPr adapters*
❷ **HDMI IN**	HDMI connector for HDMI/DVI input source *
❸ **HDMI OUT**	Connect to the monitor's HDMI signal cable

Table 1-7 Titan 9000 – (2H2V Card) Component Description

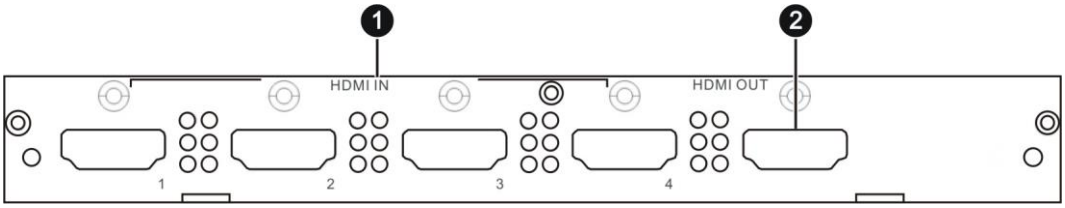


Figure 1-4 Titan 9000 – (4H Card) Components

Rear Panel	
❶ **HDMI IN**	HDMI connector for HDMI input source *
❷ **HDMI OUT**	Connect to the monitor's HDMI signal cable

Table 1-8 Titan 9000 – (4H Card) Component Description

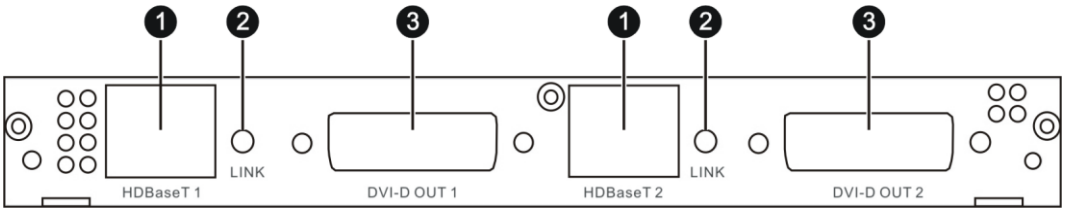


Figure 1-5 Titan 9000 – (HOB Card) Components

Rear Panel	
❶ **HDBaseT (RJ-45)**	For Titan 9000 – (HOB card) and Seneca X-HDUR connection via Cat.5e/6 cable (shielded)
❷ **LINK Indicator**	Glows green when both Titan 9000 – (HOB card) and Seneca X-HDUR are connected and turned ON
❸ **DVI OUT**	Connect to the monitor's DVI signal cable

Table 1-9 Titan 9000 – (HOB Card) Component Description

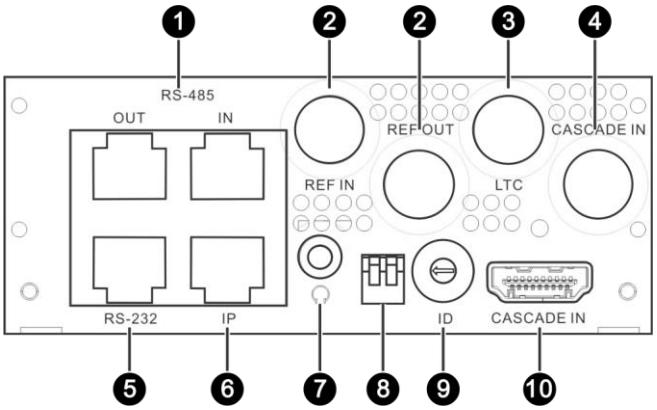


Figure 1-4 Titan 9000 – (Control Card) Components

Rear Panel (control card)	
❶ **RS-485 IN/OUT**	For serial cascading input/output control signals
❷ **REF IN/OUT**	Multi-format sync reference input/output (YPbPr/NTSC/PAL) for genlock function (frame synchronizer) *Note: For models without the genlock feature, these ports are not available.*
❸ **LTC Audio In**	For linear (or longitudinal) Time Code input (encoding of SMPTE Time Code data in an audio signal)
❹ **Cascade In**	BNC connector for multimedia input (cascade from other Rainier 3G Plus or from other video source as background image)
❺ **Serial**	❖ Connects to TSL port of the TSL controller for TSL interface via the proprietary RJ-45 to RS-232 (DB9-FM) cable *Note: This port is **not** available for connecting to a computer for configuration and control (Phoenix-Q utility). Likewise, it **cannot** be used for entering the Avitech ASCII Protocol (AAP) X command interface.*
❻ **Ethernet (IP)**	❖ For setup via the Avitech Phoenix-Q utility through network connection ❖ For entering the Avitech ASCII Protocol (AAP) X command interface ❖ For connecting to TSL port of the TSL controller for TSL interface
❼ **Headset**	1/8 inch audio port for connecting headphones (stereo)
❽ **Dip Switches**	Updates the firmware; as well as resets the Titan 9000 to the factory-default setting. *Note: Dip Switch 2 is for factory reset, see appendix B.*

Rear Panel (control card)	
❾ **ID**	Rotary dial to assign unique addresses in systems with two or more chassis
❿ **Cascade In**	HDMI connector for multimedia input (cascade from other Titan 9000 or from other video source as background image)

Table 1-10 Titan 9000 – (Control Card) Component Description

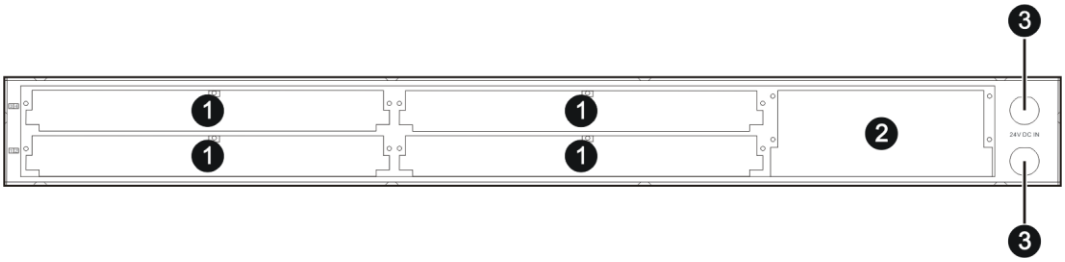


Figure 1-5 Titan 9000 Chassis Component

Rear Panel (chassis)	
❶ **Card Cover Plate**	Remove the cover plate to install any of the following: ✓ Titan 9000 – (2H2V card) ✓ Titan 9000 – (4H card) ✓ Titan 9000 – (HOB card)
❷ **Control Card Cover Plate**	Remove the cover plate to install the Titan 9000 – (control card)
❸ **Power (DC 24V)**	Connects to the 24 V DC power adapter *Note: When connecting 2 power adapters for redundant power supply, make sure to maintain a distance of at least 10 cm away from each other.*

Table 1-11 Titan 9000 Chassis Component Description

2. Hardware Configuration

This chapter discusses the process of installing a card into Titan 9000 chassis.

To prevent any damage to hardware components as well as avoid any injury, make sure to turn off power to the Titan 9000 by disconnecting the power cord before making any changes to the hardware configuration.

2.1 Installing the Card

The Titan 9000 chassis accept any of the following cards:

- ✓ *Titan 9000 – (2H2V card)*
- ✓ *Titan 9000 – (4H card)*
- ✓ *Titan 9000 – (HOB card)*

The following illustrations use the Rainier 3G Plus as example; but the steps are similar.

Step 1. Remove the two screws securing the back plate.

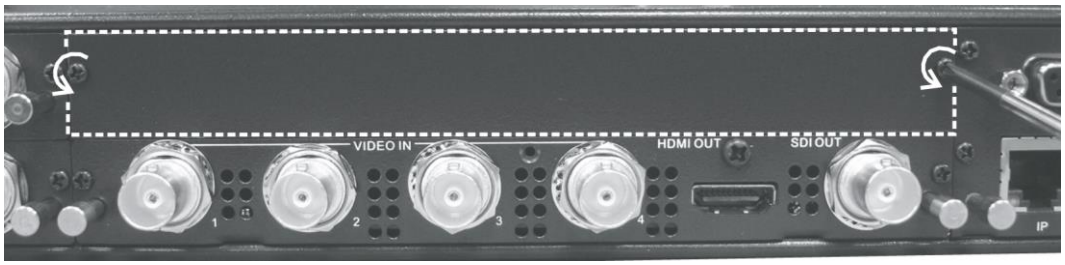


Figure 2-1 Remove the 2 Back Plate Screws

Step 2. Remove the back plate.

Figure 2-2 Remove the Back Plate

Step 3. Align both sides of the card to the rails, and slide all the way into the chassis.

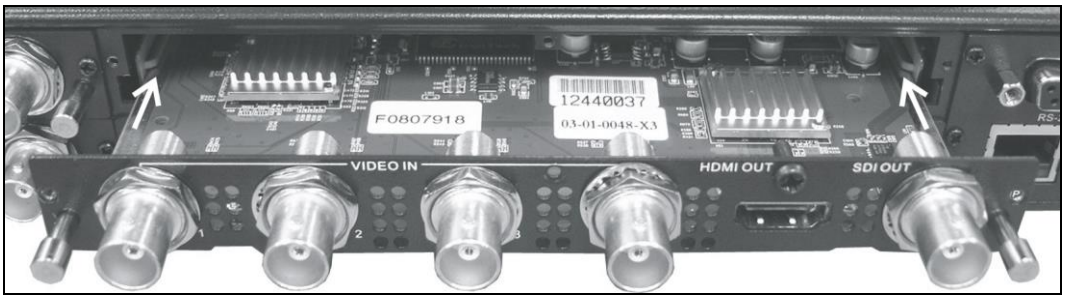


Figure 2-3 Align the Card to the Rail on Both Sides

Step 4. Secure the screws on both sides to fix the card to the chassis.

Figure 2-4 Secure the Screws on Both Sides

3. Phoenix-Q Configuration

The Avitech Phoenix-Q program requires no installation. Just copy the system files to your computer's hard drive. This chapter introduces the Phoenix-Q software for setting up the Titan 9000.

1. *Make sure the Titan 9000 is powered on and connected properly to your computer through Ethernet before launching the Phoenix-Q software.*
2. ***DO NOT** use the serial cable to connect the Titan 9000 to your computer. The serial port is for connecting to a TSL controller/interface.*

3.1 Connection Method

Connect your Titan 9000 to the controlling computer through an Ethernet cable (IP address).

Before connecting the computer to the Titan 9000, the computer will need to be changed to a static IP, and its subnet mask must be set to a similar range as the Titan 9000 (e.g., "192.168.0.5" – factory-default setting). Or, the IP address of the Titan 9000 Master chassis can be changed to a similar range as the controlling computer. See Appendix A for details.

3.2 Pinging the Titan 9000

Make sure you can ping the chassis at "192.168.0.5" (factory-default IP address).

*Step 1. Run the Phoenix-Q software by double-clicking **Phoenix-Q.exe**.*

*Step 2. Enter the factory-default IP address **192.168.0.5**. Then click **Ping**.*

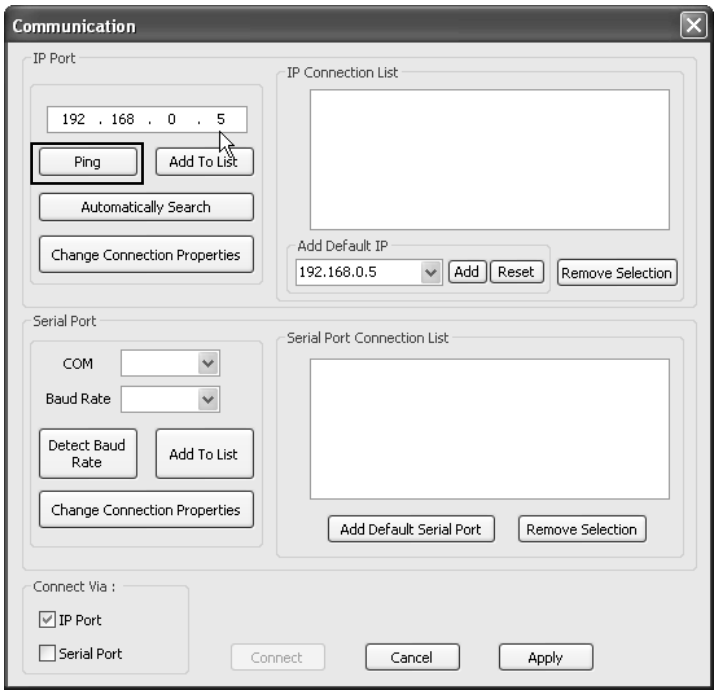


Figure 3-1 Enter the IP Address to Ping

*Step 3. The following window will appear to signify a successful communication. Click **OK** to exit.*

Figure 3-2 IP Address Pinged Successfully

3.3 Starting Up the Phoenix-Q Software

*Step 1. Run the Phoenix-Q software by double-clicking **Phoenix-Q.exe**.*

Step 2. Make sure you have set the correct IP address (see Appendix A for details).

*Step 3. Select the only type of connection allowed by clicking the **IP Port** checkbox. Then click **Connect**.*

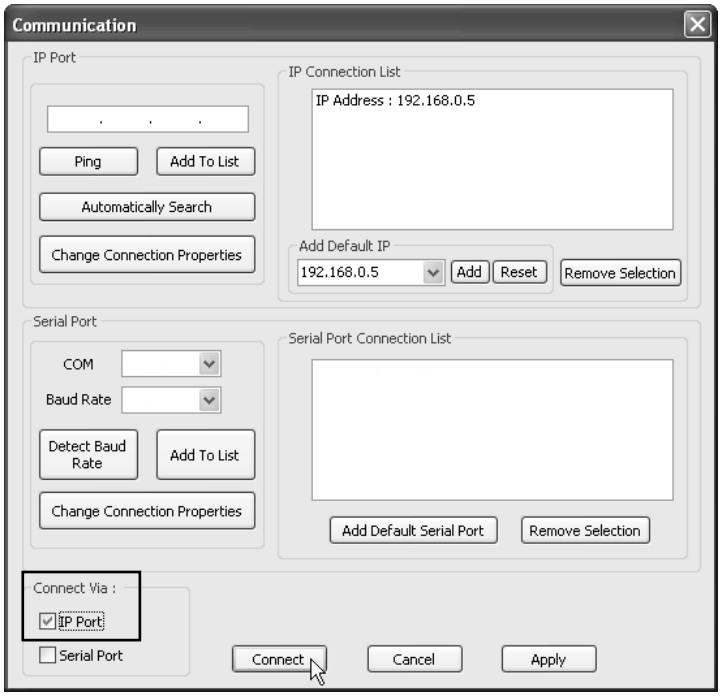


Figure 3-3 Phoenix-Q Software: Select the Ethernet Connection Method

The computer will start to search for your Titan 9000.

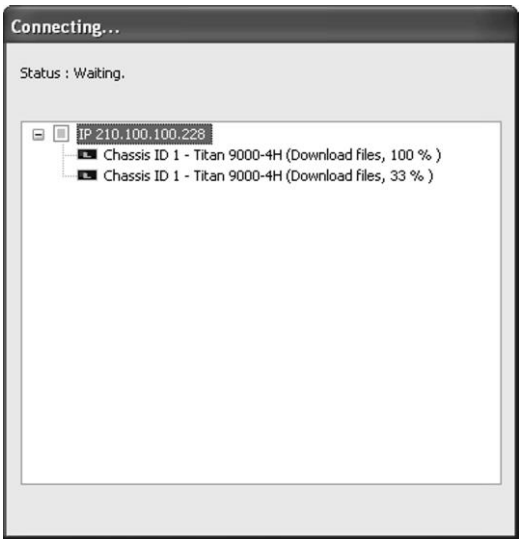

Connecting...
Status : Waiting.
IP 210.100.100.228
Chassis ID 1 - Titan 9000-4H (Download files, 100 %)
Chassis ID 1 - Titan 9000-4H (Download files, 33 %)

Figure 3-4 Phoenix-Q Software: Connection Progress

*When cascading the Titan 9000 make sure each chassis has a different rotary ID setting selected (e.g., **1 – 2 – 3**) on their rear chassis.*

*The **Group View** window will list the card(s) found and will initially be listed under **Idle Group**.*

1. *If you have two or more chassis cascaded they should also be detected.*
2. *Make sure that the slave chassis' baud rate and resolution is the same as the master chassis.*

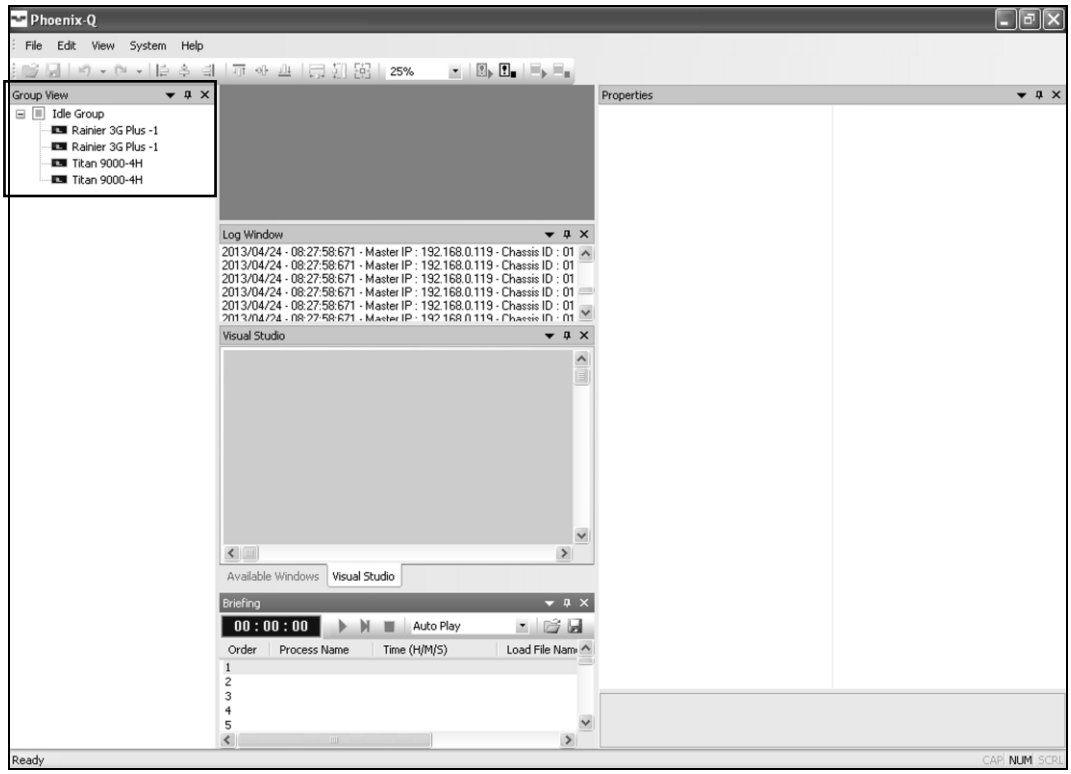


Figure 3-5 Phoenix-Q Software: Initial Screen

*Step 4. Click **System→Configuration**.*

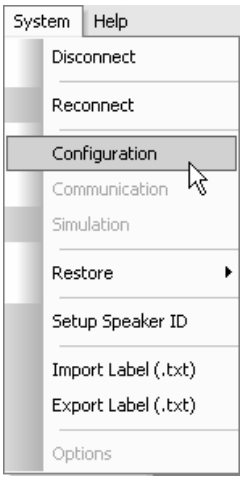


Figure 3-6 Phoenix-Q Software: Click "System"→"Configuration"

*The **Group Setup** window will appear.*

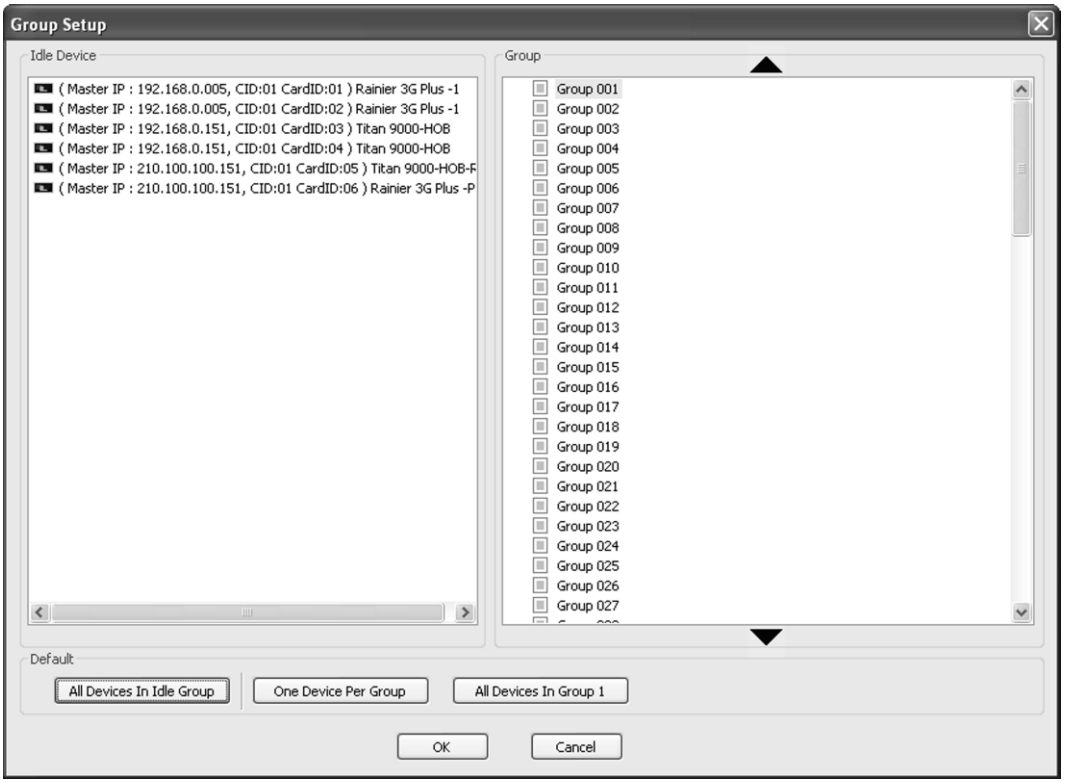


Figure 3-6 Phoenix-Q Software: Group Setup

*Step 5. To assign the grouping drag the **Idle Device** on the left panel to the desired **Group #** on the right panel (e.g., **Group 001**).*

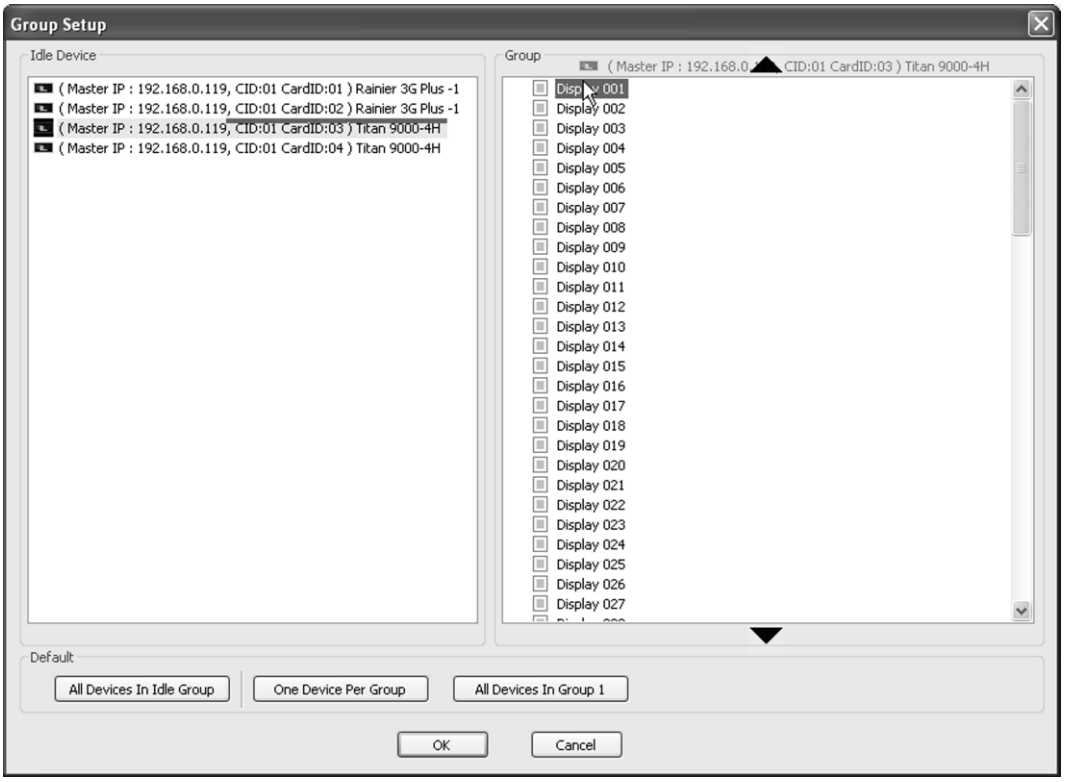


Figure 3-7 Phoenix-Q Software: Assign Group # to Idle Device

*Or, click the **One Device Per Group** button to assign a card to each group or click **All Devices in Group 1** to assign all cards to belong to **Group 1**.*

After dragging/assigning the card, it is displayed as belonging to the assigned group.

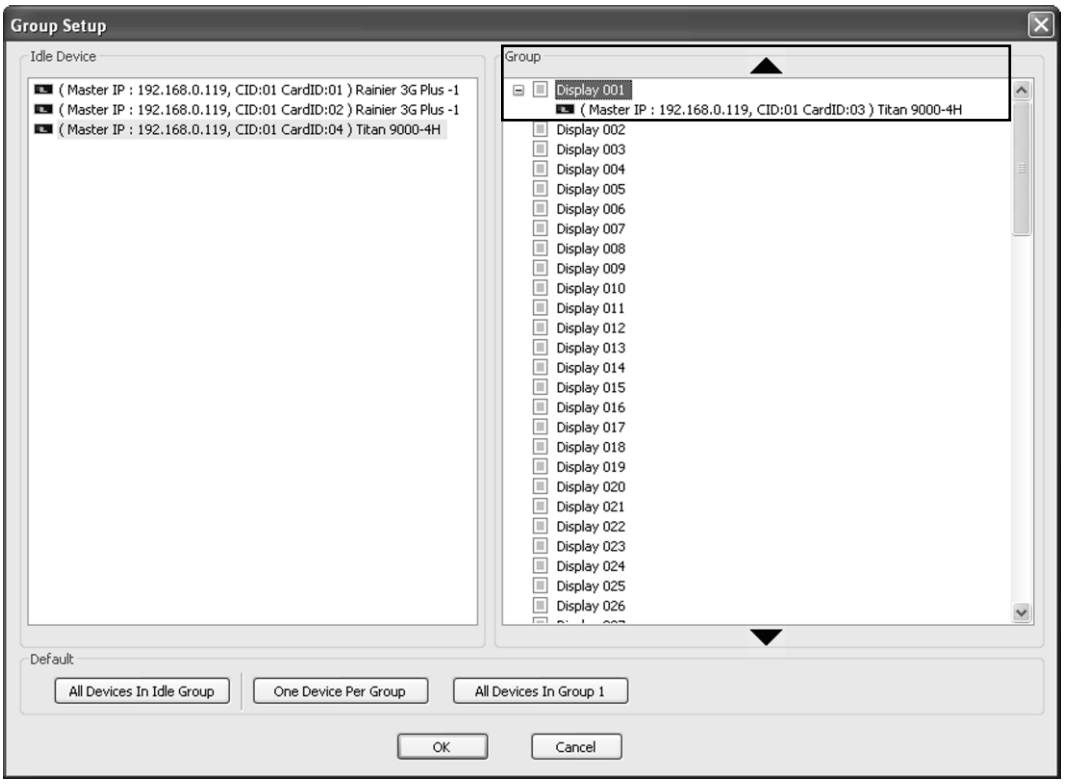


Figure 3-8 Phoenix-Q Software: Idle Device Assigned to Group 001

*Step 6. Repeat the previous step for any additional **Idle Device**(s), if any. Next, click **OK** to exit the **Group Setup** window. Phoenix-Q will save the configuration file "System.agi" to the device's flash memory*

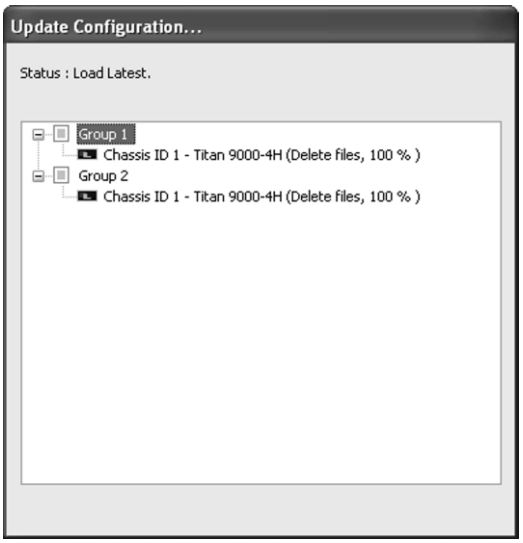

Update Configuration...
Status : Load Latest.
Group 1
Chassis ID 1 - Titan 9000-4H (Delete files, 100 %)
Group 2
Chassis ID 1 - Titan 9000-4H (Delete files, 100 %)

Figure 3-9 Phoenix-Q Software: Update Configuration Progress

The next figure shows sample idle devices assigned to groups. The "[1.1]" appearing before the card name signifies the chassis ID and card ID number. Hence "[1.2]" would signify chassis ID 1 and card ID 2.

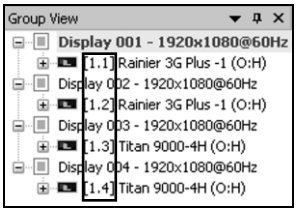

Group View
Display 001 - 1920x1080@60Hz
[1.1] Rainier 3G Plus -1 (O:H)
Display 002 - 1920x1080@60Hz
[1.2] Rainier 3G Plus -1 (O:H)
Display 003 - 1920x1080@60Hz
[1.3] Titan 9000-4H (O:H)
Display 004 - 1920x1080@60Hz
[1.4] Titan 9000-4H (O:H)

Figure 3-10 Phoenix-Q Software: Chassis and Card ID

3.4 Obtaining the UMD (Under Monitor Display) Data from Router

*Step 1. Click **System→Disconnect**.*

Figure 3-11 Phoenix-Q Software: Click "System"→"Disconnect"

*Then click **OK** to confirm system disconnection via Phoenix-Q software.*

Figure 3-12 Phoenix-Q Software: Confirm Disconnection

The progress of disconnection will appear on screen.

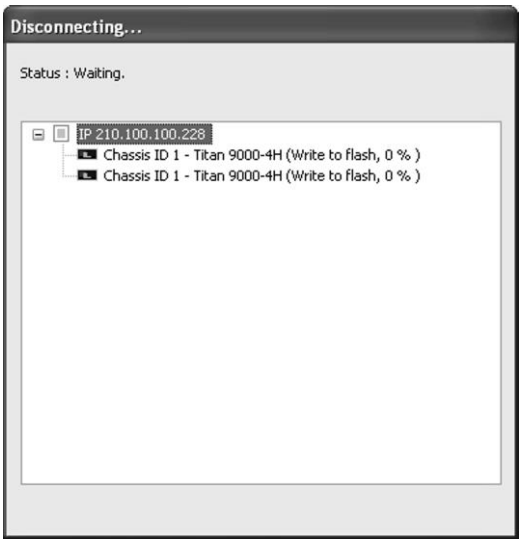

Disconnecting...
Status : Waiting.
IP 210.100.100.228
Chassis ID 1 - Titan 9000-4H (Write to flash, 0 %)
Chassis ID 1 - Titan 9000-4H (Write to flash, 0 %)

Figure 3-13 Phoenix-Q Software: Disconnection Progress

*Step 2. Click **System→Options**.*

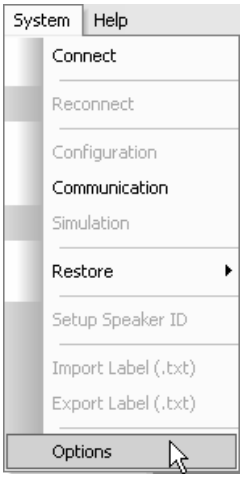


Figure 3-14 Phoenix-Q Software: Click “System”→”Options”

*Step 3. On the **Options** screen click **External Device** and make sure that **Device Enable** is set **On**.*

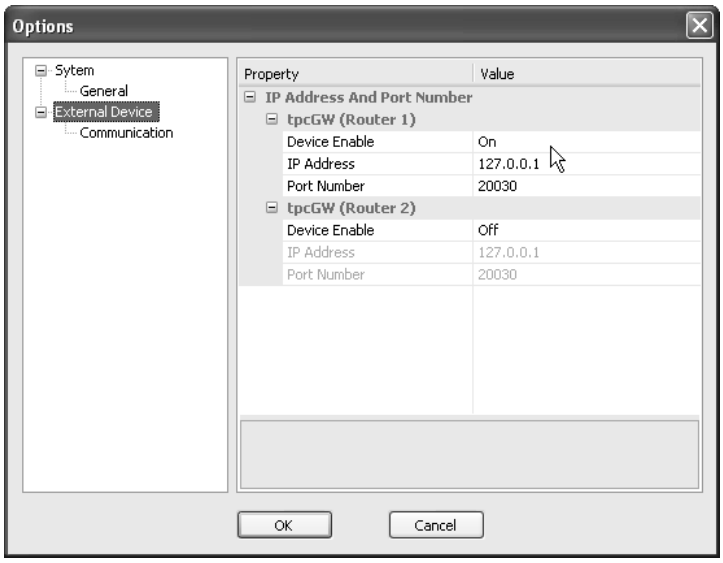


Figure 3-14 Phoenix-Q Software: Enable External Device

*Step 4. Make sure that the **IP Address** corresponds to the IP address of the computer running the tpcGW utility. If not, click the IP Address button "…" and when the **IP Address** screen appears, enter the correct value. Then click **OK** to exit.*

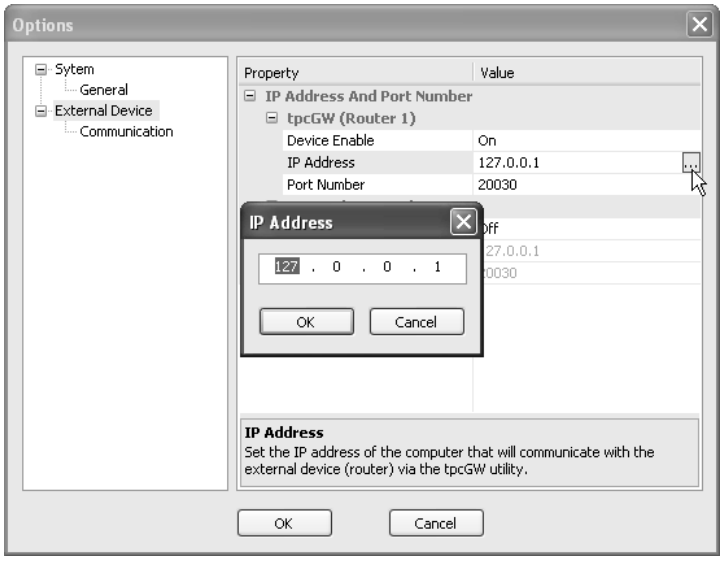


Figure 3-15 Phoenix-Q Software: Enter Correct IP Address

*Step 5. Lastly, make sure that the **Port Number** shown is correct. If not, enter the value directly or click the up/down arrow button. Then click **OK** to exit the **Option** screen setup.*

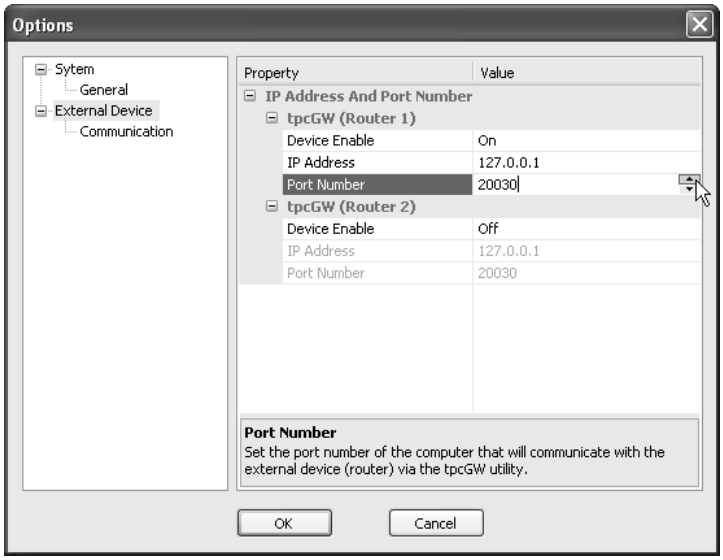


Figure 3-16 Phoenix-Q Software: Enter Correct Port Number

*Make sure the value appearing for both **IP Address** and **Port Number** are similar to the value entered in the tpcGW utility, they must be to be able to successfully connect to the router.*

Step 6. To allow the Phoenix-Q software to connect to the router, use the tpcGW utility (refer to the tpcGW Utility Quick Reference Guide for details).

3.5 Window Layout

3.5.1 Arranging Windows (by Group)

For a quick layout setup of your video windows, right-click the **Group #** tab to access the **Group Layout** menu. Select from **2×2** up to **13×13** as possible grid positions on the monitor.

The layout size available for your particular model will depend on the monitor's resolution as well as the smallest window size limitation.

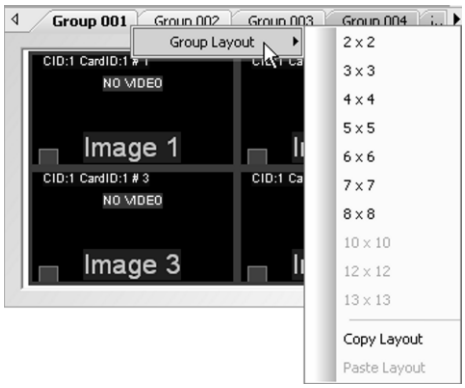


Figure 3-17 Phoenix-Q Software: Group Layout

3.5.2 Resizing Window

Perform the following steps to resize a window:

*Method 1. Right-click the mouse on a window, and then select **Size**. Followed by the desired preset size.*

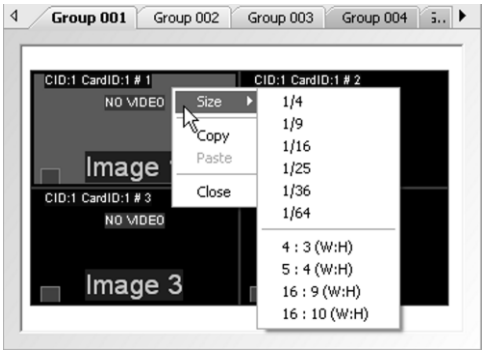


Figure 3-18 Phoenix-Q Software: Select a Preset Size

Method 2. Resize a window by dragging the border of a window to the desired size. Keep in mind that there is a scaling limitation for each window that limits the minimum scalable size to 128×80 pixels for NTSC/PAL video (320×180 for Titan 9000-HOB).

To reposition a window, drag the center of a window and drop to a new position. It will be updated on the monitor. Or, upon selecting a window, use the left/right/up/down arrow buttons on your keyboard.

3.5.3 Full Screen Mode; Swap Window Contents

Full Screen Mode

Double-click the mouse on a window to enter full screen mode. Double-click again to return from full screen mode.

Swap Window

*Move cursor to the bottom left hand corner of a window until a letter **S** appears.*

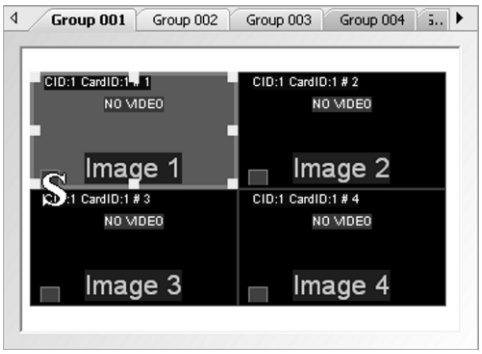


Figure 3-19 Phoenix-Q Software: Swap Window

*Click the letter **S** to select a source window and then click again at a destination window where you want to swap the contents from the source. This will swap all the contents and properties of the source window to the destination window.*

3.5.4 Visual Studio

For a quick global view of monitors installed in the studio, click the Visual Studio tab to easily glance the present set ups.

Figure 3-20 Phoenix-Q Software: Group Layout

Quick Information

Positioning the cursor on top of a window will provide a quick information of the window. As well as the prompt "Double-click → (window label)" to allow you to quickly bring up the particular group's layout view in the main window of Phoenix-Q.

Figure 3-21 Phoenix-Q Software: Group Layout

Magnification

Right-click the mouse anywhere on a window to select from the 3 available magnifications.

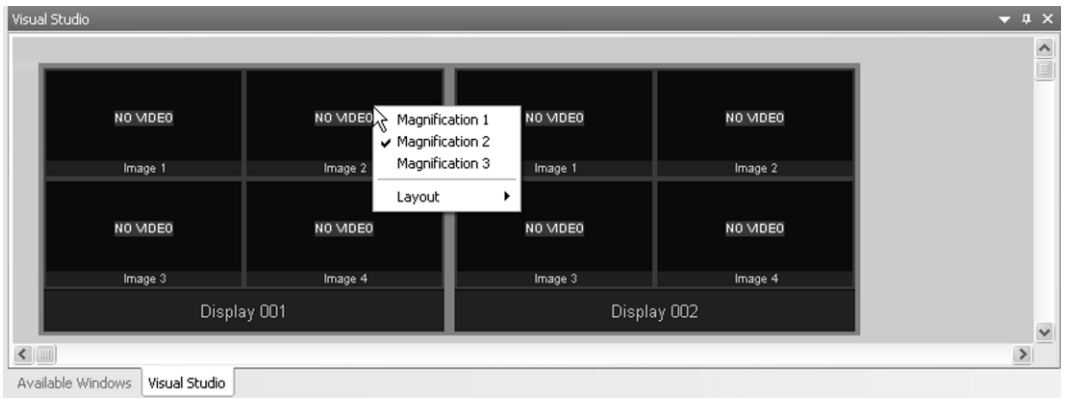


Figure 3-22 Visual Studio: Select the Magnification

Layout

*For a quick layout setup of your video windows, right-click the mouse anywhere on a window to access the **Layout** menu. Select from **2**×**2** up to **10**×**10** as possible grid positions, as well as specify a fixed 1 row by "N" columns or "N" rows by 1 column.*

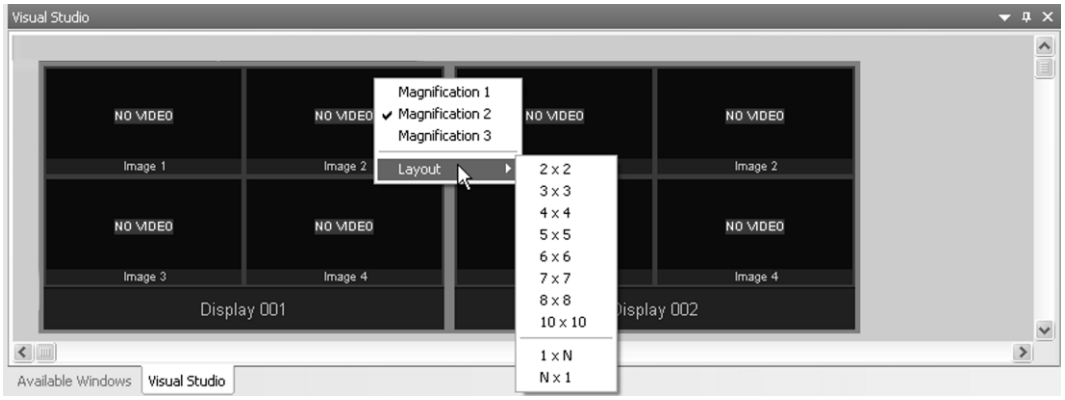


Figure 3-22 Visual Studio: Modify the Layout

4. Basic Setup Using the Phoenix-Q Software

This chapter introduces you to the Phoenix-Q software for setting the features of your Titan 9000; as well as familiarizes you with the menus appearing on the Phoenix-Q software.

Some items appearing on the menus of the Phoenix-Q software may not be available (grayed-out).

4.1 File Menu

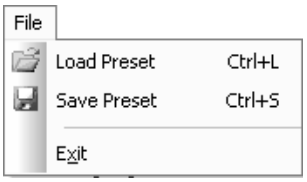


Figure 4-1 Phoenix-Q Software: File Menu

All the presets you create are stored in the Titan 9000 flash memory, not on your computer. After creating a preset you will need to “save to flash” in order to write all the presets into the internal flash memory of the Titan 9000. To save a preset, perform the following steps:

“Save Preset” is not available for Titan 9000-HOB.

Step 1. Configure the window layout to how you want it to be displayed.

*Step 2. Click **Save Preset**.*

*Step 3. Enter a unique filename for the preset, and select **OK** to save. Repeat these steps for each additional preset.*

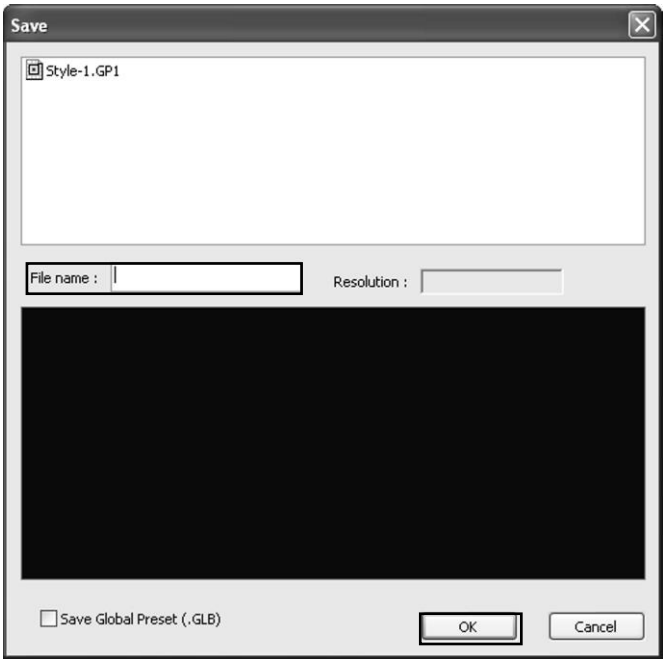


Figure 4-2 Phoenix-Q Software: Enter Unique Filename for Preset

*The file extension **GP#** will be automatically added to the filename.*
1. *When using a keypad, use the numbers **0**–**9** for your preset names.*
2. *When using the GPI, use the numbers **1**–**8** for your preset names.*

*Each group's preset can be saved by clicking **Save Global Preset** (with checkmark); and the file extension **GLB** will be automatically added to the filename.*

*You can delete a file appearing on the **Save** window by right-clicking the filename and clicking **Delete**.*

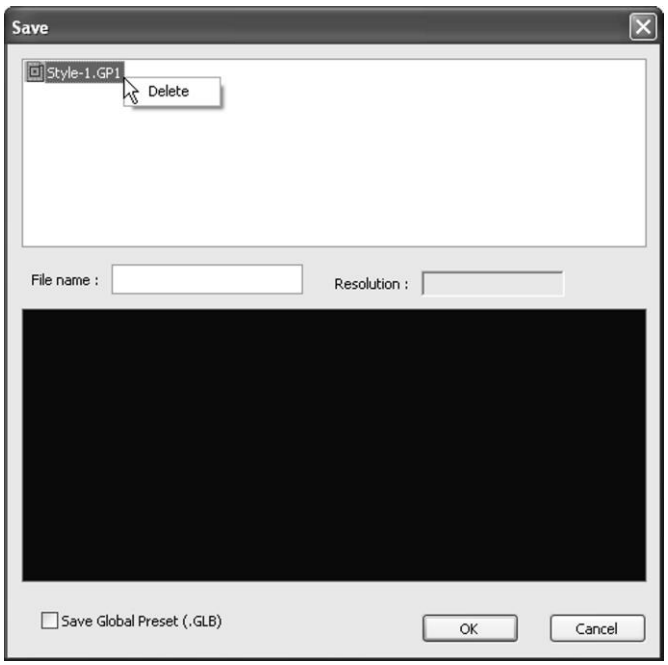


Figure 4-3 Phoenix-Q Software: Delete File in Save Window

*To delete all the files appearing on the window right-click anywhere inside the window (except on the filename itself) and click **Delete All**. When the confirmation window appears, click **OK** to proceed.*

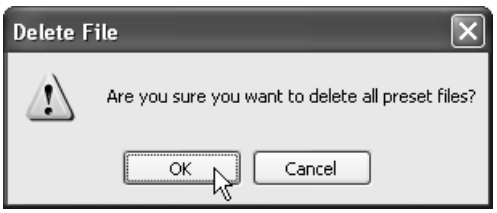


Figure 4-4 Phoenix-Q Software: Delete All Preset Files Confirmation

*Step 4. After you are done creating presets load the file that you want to be the master layout which gets loaded when the Titan 9000 is powered on by clicking **Load Preset**.*

*Step 5. Select a saved file and then click **OK** to load the preset.*

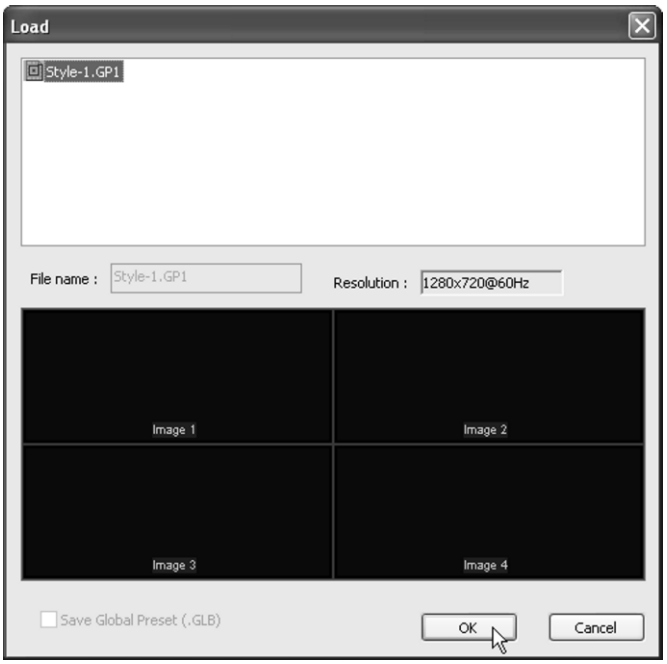


Figure 4-5 Phoenix-Q Software: Load Preset File

*Just like the **Save** window you can delete a file appearing on the **Load** window by right-clicking the filename and clicking **Delete**. To delete all the files appearing on the window right-click anywhere inside the window (except the filename itself) and click **Delete All**. When the confirmation window appears, click **OK** to proceed.*

*Step 6. Click **Exit** to close the Phoenix-Q software and all the changes would be automatically saved to the configuration file "System.agi" in the device's flash memory.*

4.2 Edit Menu

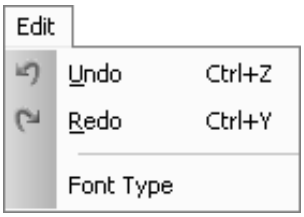


Figure 4-6 Phoenix-Q Software: Edit Menu

Edit Menu	
Undo	Click **Undo** to cancel the previous step.
Redo	Click **Redo** to repeat the previous step that was cancelled.
Font Type	Click **Font Type** to set the **Font**, **Font style**, and **Size**.

Table 4-1 Phoenix-Q Software: Edit Menu Description

Font Type: *Click **Font Type** to select the **Font**, **Font style**, and **Size**. Then, click **OK**.*

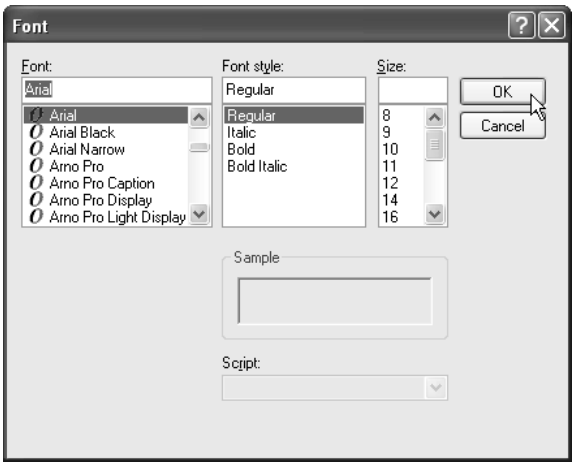


Figure 4-7 Phoenix-Q Software: Set Font Properties

***For Windows 7:** When using the Phoenix-Q in a different language other than English the **Font** "Arial" might not appear as the default font-type. This may cause the label appearing in the window to appear askew. Perform the following steps to return the default font type to **Arial**.*

*Step 1. Click **Control Panel** and when the next screen appears click **Appearance and Personalization**.*

*Step 2. On the next screen click **Change Font Settings** under **Fonts**.*

*Step 3. On the next screen click **Font settings**.*

*Step 4. On the next screen click to unselect the **Hide fonts based on language settings** checkbox. Then click **OK** to exit.*

*Step 5. On the Phoenix-Q software click to select **Arial** as the default **Font** and click **OK**.*

4.3 View Menu

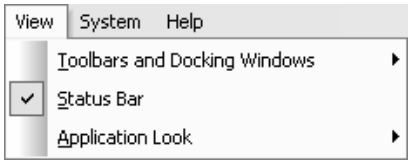


Figure 4-8 Phoenix-Q Software: View Menu

View Menu	
Toolbars and Docking Windows	Enable (with checkmark) or disable the display of any of the toolbars or windows as well as **Customize** the display. *See figure 4-9
Status Bar	When selected (with checkmark) the status bar is displayed on the bottom of the Phoenix-Q software. Click to select or deselect.
Application Look	Click **Application Look** to select the overall design and theme of the Phoenix-Q software. *See figure 4-11

Table 4-2 Phoenix-Q Software: View Menu Description

Toolbars and Docking Windows:

Enable (with checkmark) or disable the display of the **Standard** toolbar, **Available Windows** panel, **Log Window** panel, **Group View** panel, **Properties** panel, **Briefing** panel, as well as **Customize** the display.

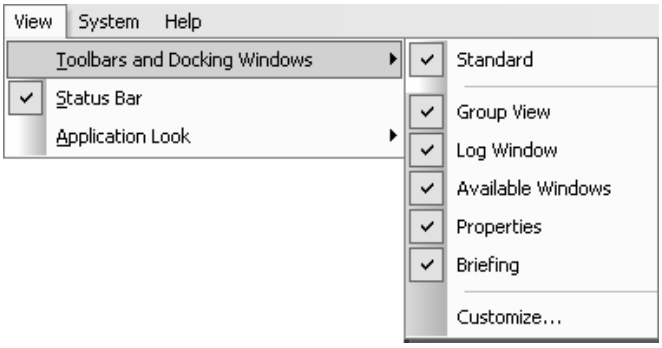


Figure 4-9 Phoenix-Q Software: "Toolbars and Docking Windows" Menu

Customize:

Click **Customize** to design the look of the menus and commands appearing on the Phoenix-Q software. Click the particular folder (**Commands**, **Toolbars**, **Menu**, and **Options**) and then make the necessary changes. Click **Close** when finished to exit.

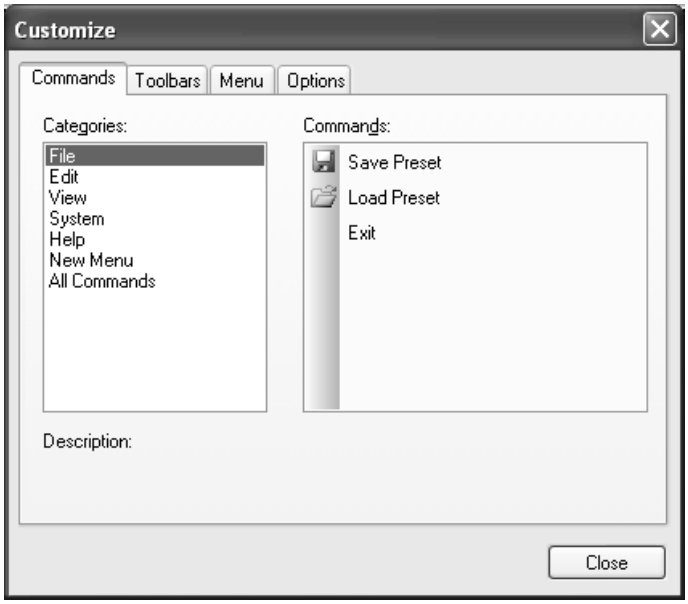


Figure 4-10 Phoenix-Q Software: "Customize the Toolbars" Window

Application Look:

Click **Application Look** to select the overall design and theme of the Phoenix-Q software. Click on the themes title to view the theme.
Note: The “dot” in front of **Visual Studio.NET 2005** signifies that it is the currently selected theme.

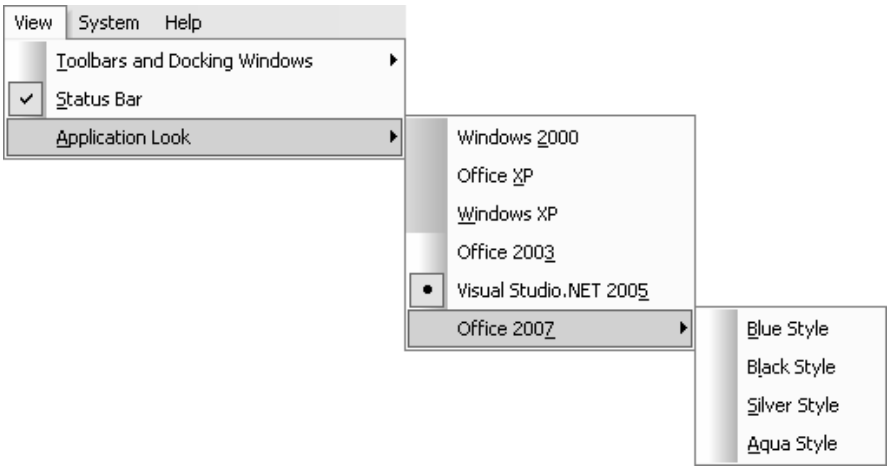


Figure 4-11 Phoenix-Q Software: “Application Look” Menu

4.4 System Menu

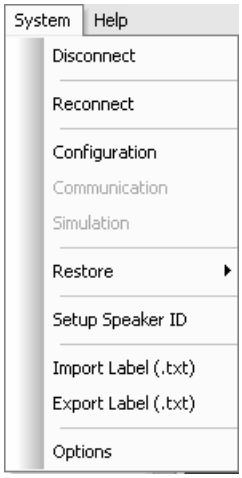


Figure 4-12 Phoenix-Q Software: System Menu

System Menu	
Connect or **Disconnect**	**Connect** the computer and Titan 9000 via Ethernet connection; or **Disconnect** it. Before connecting make sure that the correct configurations are entered under the item **Communication**.
Reconnect	When you have unplugged the Ethernet cable and re-connected it, click **Reconnect** to continue the configuration process.
Configuration	Click **Configuration** to assign the groupings. Create the configuration of a particular group (for example move the card to another group as so desired by dragging the card listed under **Group 001** to **Group 003**) and then click **OK**. Phoenix-Q will save the configuration file "System.agi" to the device's flash memory. *Note: This item is available only when the computer is connected to the Titan 9000.*
Communication	Click **Communication** to select the **IP Port** "Ethernet" mode of connection between the computer and Titan 9000.* *Note: This item is not available when the computer is connected to the Titan 9000.*
Simulation	After setting the mode of connection between the computer and the Titan 9000, click **Simulation** to preview.* *Note: This item is not available when the computer is connected to the Titan 9000.*
Restore*	To restore a preset follow the steps outlined in figures (4-13 to 4-16). *Note: This item is only available when the computer is connected to the Titan 9000.*
Setup Speaker ID*	Use Setup Speaker ID to set up which speakers monitor which audio sources.
Import Label*	Import ANSI or BMP labels from a .txt file. See figures (4-19 to 4-22) for details.
Export Label*	Export a label to be edited externally. The most convenient way is to export the file (label) as an ANSI or BMP label. See figures (4-19 to 4-22) for details.
Options*	Options open up a popup window which allows you to customize a number of default settings for Phoenix-Q. These settings are organized into the following categories; System, General, External Device, and Communication. See figures (4-23 to 4-34) for details.

Table 4-3 Phoenix-Q Software: System Menu Description

Restore: *To manually **Restore** a preset perform the following steps.*

Step 1. Set the Titan 9000 to the factory-default value (see Appendix B for details).

*Step 2. Make sure that the rotary **ID** setting of the chassis being restored matches the old chassis' setting (if the restoration to be attempted is not for the same chassis).*

*Step 3. Click **System→Restore→Configuration and Files**.*

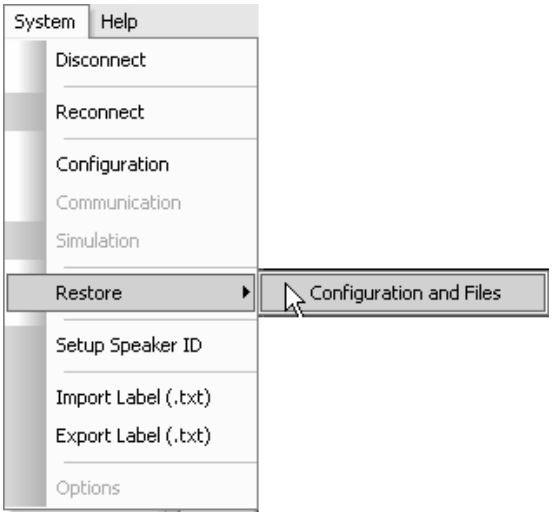


Figure 4-13 Phoenix-Q Software: Click "System"→"Restore"→"Configuration and Files"

*Step 4. The **Date** window shows various folders with the date (automatically generated) when the preset(s) were previously saved. The **Preview Configuration** window shows the setup of the just selected folder. The **Present Configuration** window shows the present setup of the Titan 9000.*

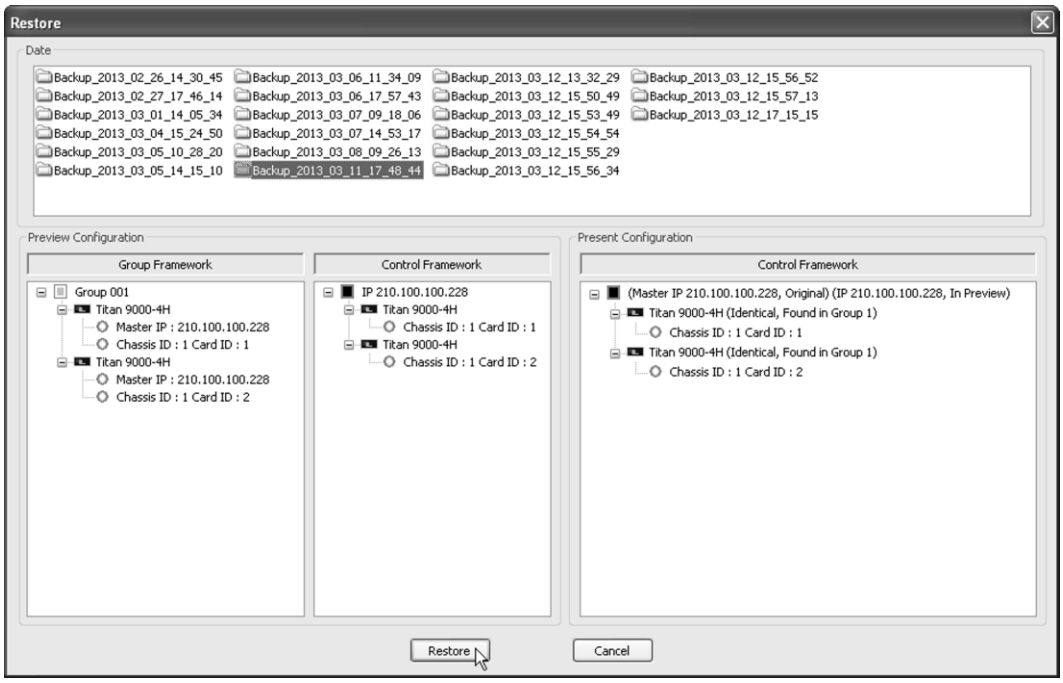


Figure 4-14 Phoenix-Q Software: "Restore" Window

*Step 5. Click to select a restore point (e.g., **Backup_2013_03_11_17_48_44**). System will automatically compare the setup listed in **Present Configuration** window with the setup listed in **Preview Configuration** window (e.g., **Identical**, **Different**, **New Device**).*

*When the setup of the **Present Configuration** window is different from the setup in the **Preview Configuration** window (e.g., upon selecting **Backup_2013_03_05_14_15_10** folder in the **Date** window) then restore is not allowed by the system and the **Restore** button remains grayed-out.*

*Step 6. Click **Restore**. The progress of restoration will be shown.*

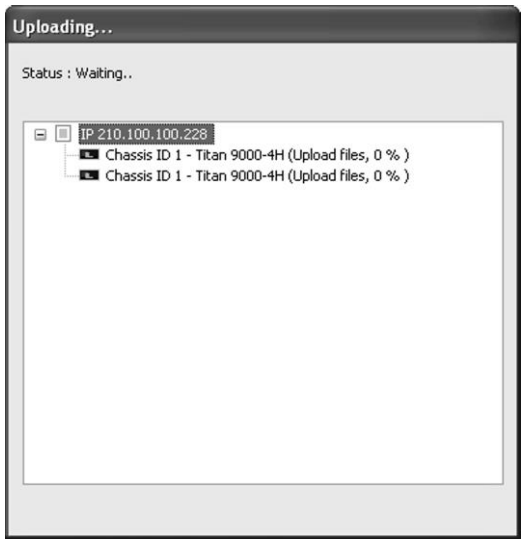

Uploading...
Status : Waiting..
IP 210.100.100.228
Chassis ID 1 - Titan 9000-4H (Upload files, 0 %)
Chassis ID 1 - Titan 9000-4H (Upload files, 0 %)

Figure 4-15 Phoenix-Q Software: "Restore" Progress

Step 7. Reboot the Titan 9000 to complete the "Restore" process.

Figure 4-16 Phoenix-Q Software: Reboot Device

Setup Speaker ID: *Use **Setup Speaker ID** to set up which speakers monitor which audio sources.*

Figure 4-17 Phoenix-Q Software: Click "System"→"Setup Speaker ID"

Use the **Setup Speaker ID** function to set up the speaker to monitor the audio source by assigning the **Speaker ID** number (**1** to **32**) for each card ID. Click to assign **One group per speaker** or to assign **All group in one speaker**. Then click **OK** to exit.

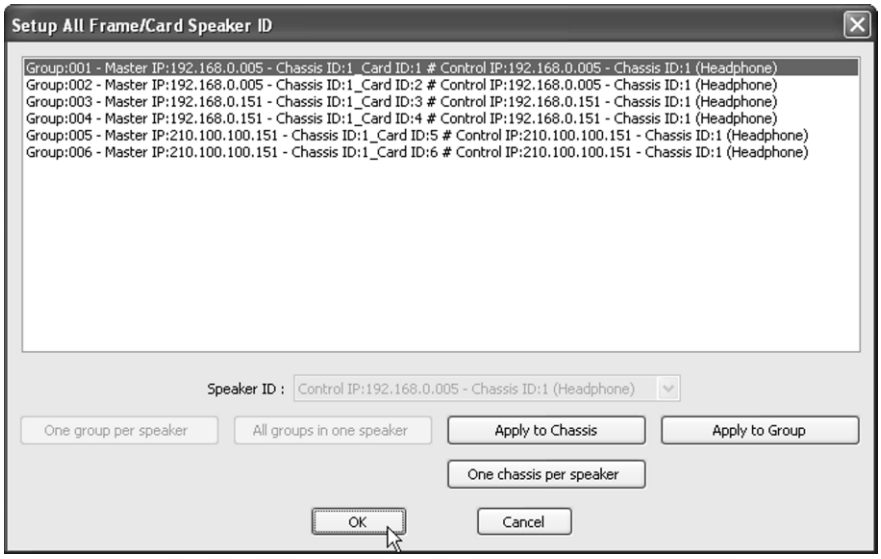

Setup All Frame/Card Speaker ID
Group:001 - Master IP:192.168.0.005 - Chassis ID:1_Card ID:1 # Control IP:192.168.0.005 - Chassis ID:1 (Headphone)
Group:002 - Master IP:192.168.0.005 - Chassis ID:1_Card ID:2 # Control IP:192.168.0.005 - Chassis ID:1 (Headphone)
Group:003 - Master IP:192.168.0.151 - Chassis ID:1_Card ID:3 # Control IP:192.168.0.151 - Chassis ID:1 (Headphone)
Group:004 - Master IP:192.168.0.151 - Chassis ID:1_Card ID:4 # Control IP:192.168.0.151 - Chassis ID:1 (Headphone)
Group:005 - Master IP:210.100.100.151 - Chassis ID:1_Card ID:5 # Control IP:210.100.100.151 - Chassis ID:1 (Headphone)
Group:006 - Master IP:210.100.100.151 - Chassis ID:1_Card ID:6 # Control IP:210.100.100.151 - Chassis ID:1 (Headphone)
Speaker ID :
Control IP:192.168.0.005 - Chassis ID:1 (Headphone)
One group per speaker
All groups in one speaker
Apply to Chassis
Apply to Group
One chassis per speaker
OK
Cancel

Figure 4-18 Phoenix-Q Software: Card Speaker ID

This item is only available when the computer is connected to the Titan 9000.

Import and Export Labels

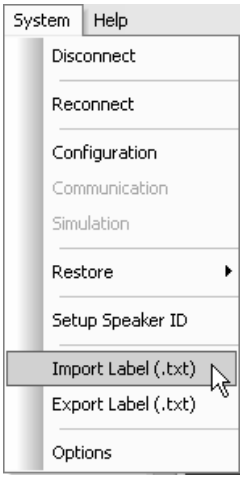


Figure 4-19 Phoenix-Q Software: Click "System"→"Import/Export Label (.txt)"

1. *Settings here will affect all the labels of the Groups in the System.*
2. *These items are only available when the computer is connected to the Titan 9000.*

Export the label to be edited externally. The most convenient way is to export the file (label) as:

- ✓ ***Label*** *(****ANSI*** *– up to 30 characters; can contain the English characters A–Z, a–z, 0–9), or*
- ✓ ***BMP Label*** *(Unicode – up to 15 characters; useful for displaying text other than the English language)* ***txt*** *file*

*Step 1. Click **System→Export Label (.txt)** and assign a filename. Then click **Save**.*

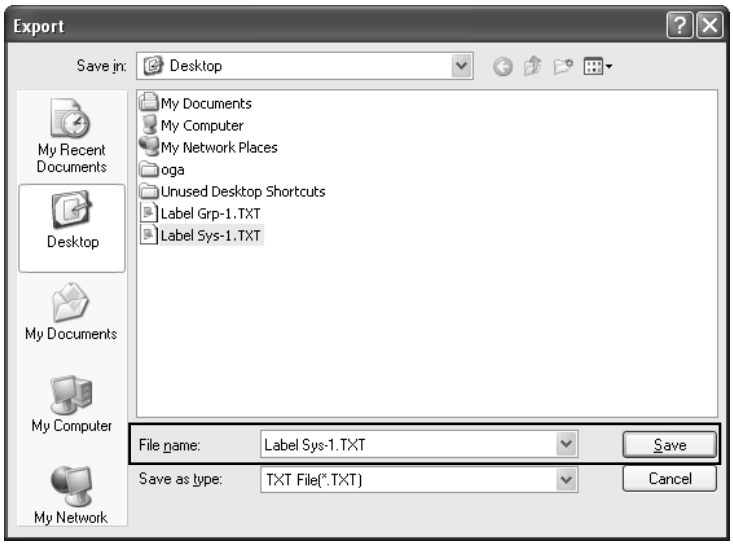


Figure 4-20 Phoenix-Q Software: Export Label

*Step 2. Open the exported text file. The first row of text provides a guide to the two types of labels (**A** for **ANSI** / **B** for **BMP Label**). Change the label type as desired by typing **A** or **B** after the dash "**–**" (highlighted as shown below).*

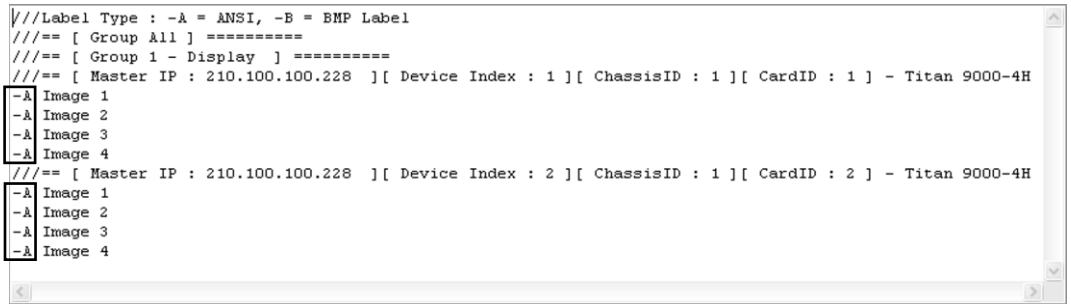

///Label Type : -A = ANSI, -B = BMP Label
///== [Group All] ==========
///== [Group 1 - Display] ==========
///== [Master IP : 210.100.100.228][Device Index : 1][ChassisID : 1][CardID : 1] - Titan 9000-4H
-A Image 1
-A Image 2
-A Image 3
-A Image 4
///== [Master IP : 210.100.100.228][Device Index : 2][ChassisID : 1][CardID : 2] - Titan 9000-4H
-A Image 1
-A Image 2
-A Image 3
-A Image 4

Figure 4-21 Phoenix-Q Software: Change Label Type

*Step 3. Then edit the text in the file (highlighted as shown below). When you are done editing the label save the **txt** file and import it. The on screen labels will be updated.*

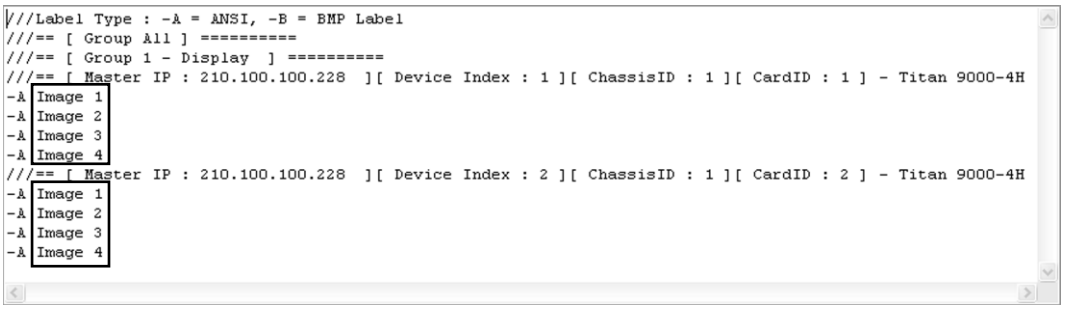

///Label Type : -A = ANSI, -B = BMP Label
///== [Group All] ==========
///== [Group 1 - Display] ==========
///== [Master IP : 210.100.100.228][Device Index : 1][ChassisID : 1][CardID : 1] - Titan 9000-4H
-A Image 1
-A Image 2
-A Image 3
-A Image 4
///== [Master IP : 210.100.100.228][Device Index : 2][ChassisID : 1][CardID : 2] - Titan 9000-4H
-A Image 1
-A Image 2
-A Image 3
-A Image 4

Figure 4-22 Phoenix-Q Software: Change Label Text

Options: *Opens a popup window with system configuration settings.*

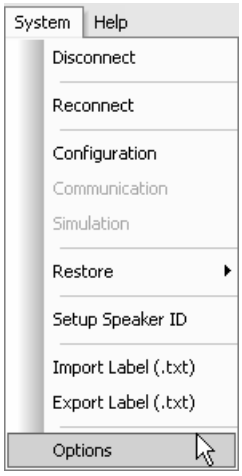


Figure 4-23 Phoenix-Q Software: Click "System"→"Options"

✓ ***General→Backup Path***

The default backup path "C:\Avitech\Backup\" contains the system configuration, preset files, system log data, and firmware version information. To change the backup path, type the desired path in the ***Value*** *column (if available).*

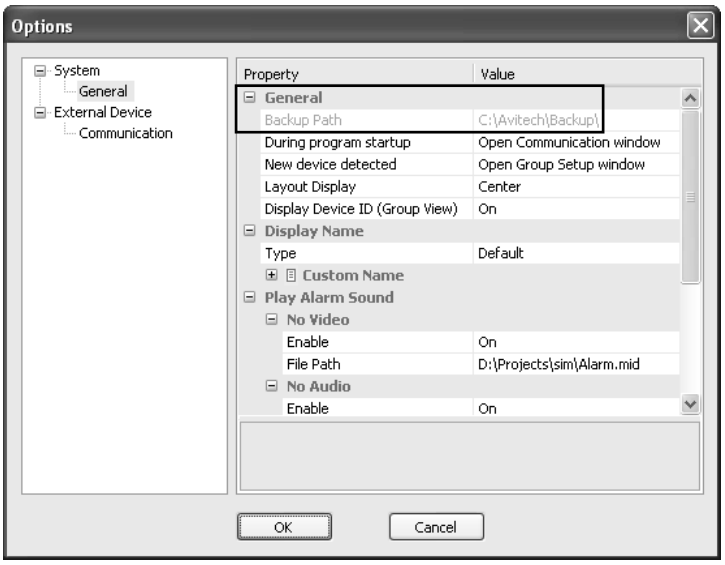


Figure 4-24 Options: "System"→"General"→"Backup Path"

*Or click the select folder button "…" (if available) and when the **Select Folder** screen appears select from the existing folders or click the **Make New Folder** button to create a new folder. Then click **OK** to exit.*

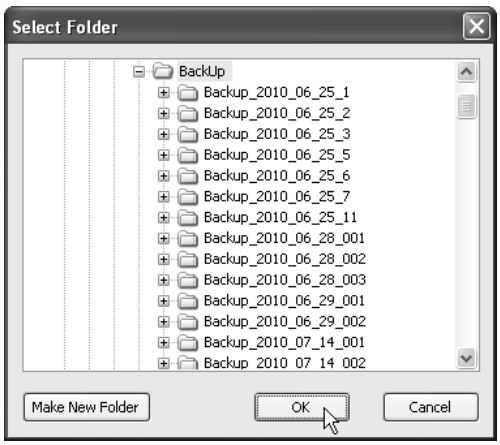


Figure 4-24 Phoenix-Q Software: Select Folder Window

✓ ***General→During Program Startup***
*Click the drop-down button (use the mouse to click the cell's rightmost portion) to select **Open Communication window** that allows the Phoenix-Q program to automatically open the **Communication** window upon startup.*

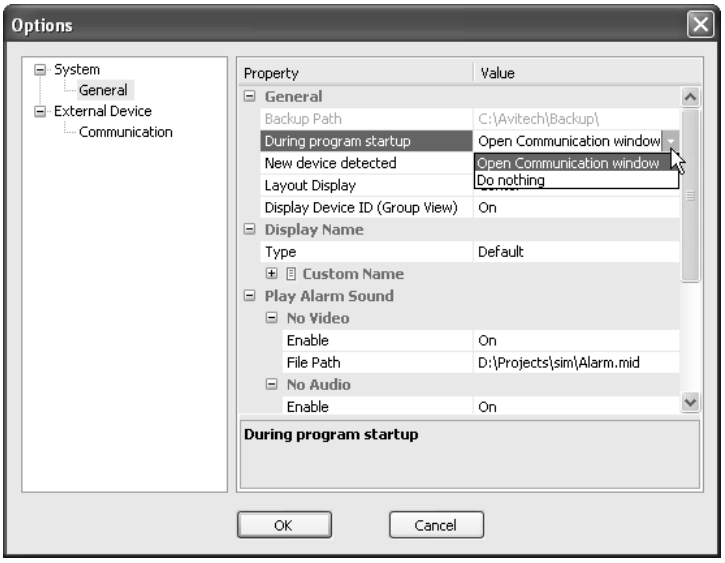


Figure 4-25 Options: "System"→"General"→"During Program Startup"

✓ ***General→New Device Detected***
Click the drop-down button (use the mouse to click the cell's rightmost portion) to select ***Open Group Setup window*** *that allows the Phoenix-Q program to automatically open the* ***Group Setup*** *window when a new device has been detected.*

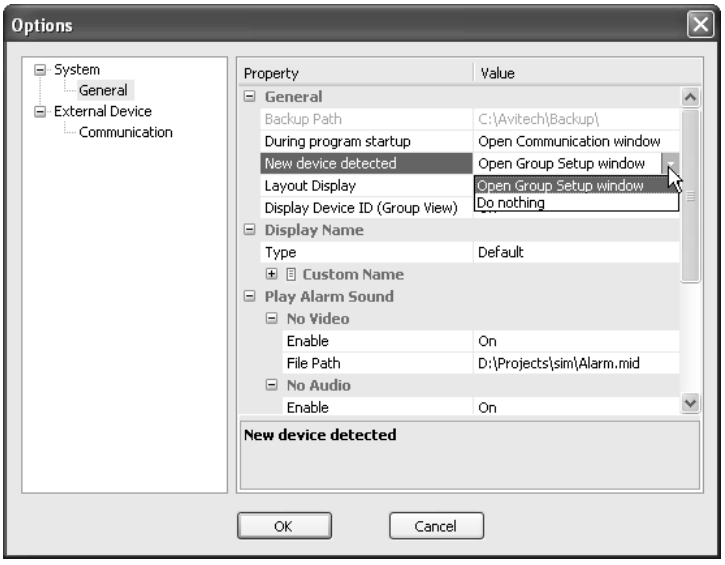


Figure 4-26 Options: "System"→"General"→"New Device Detected"

To prevent error when detecting the new device it is highly recommended the new device to return to its default setting before connecting it to the present setup.

✓ ***General→Layout Display***
Click the drop-down button (use the mouse to click the cell's rightmost portion) to select ***Center*** *or* ***Upper left corner*** *that allows the preview window to be displayed in the center or upper left corner.*

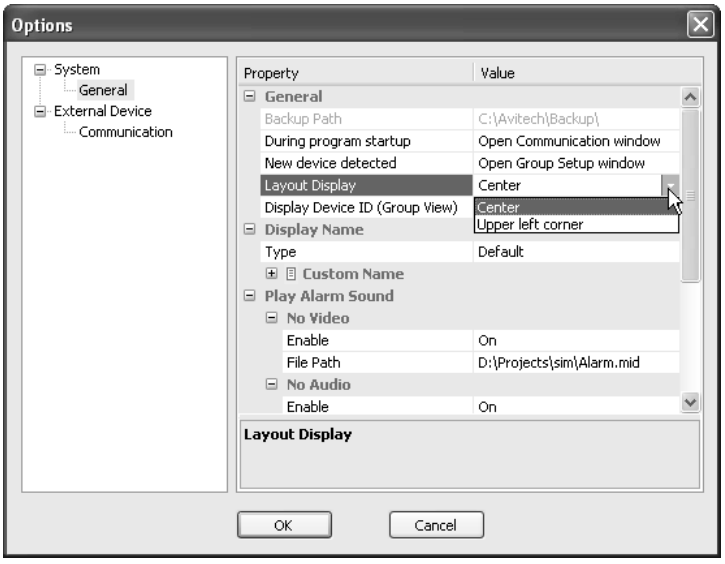


Figure 4-27 Options: "System"→"General"→"Layout Display"

✓ ***General→Display Device ID (Group View)***

*To display the device ID information in the **Group View** panel, make sure **Display Device ID (Group View)** is enabled (set **On**). Click the drop-down button [use the mouse to click the **Display Device ID (Group View)** cell's rightmost portion] to select **On**.*

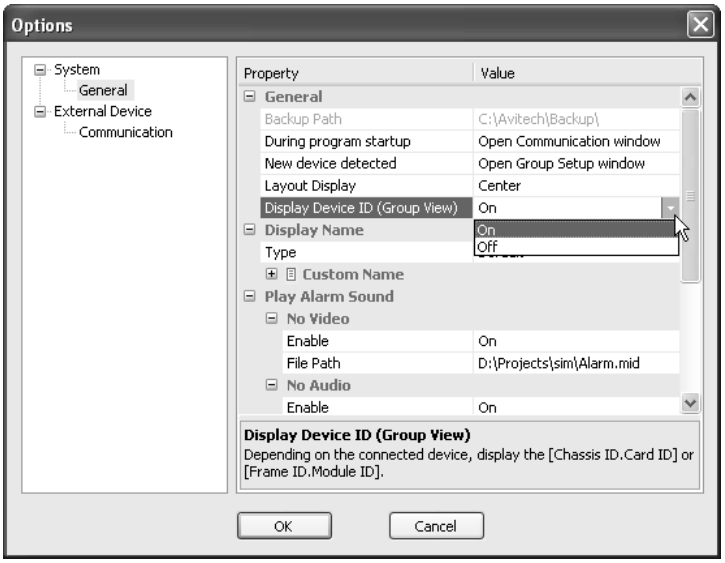


Figure 4-28 Options: "System"→"General"→"Display Device ID (Group View)"

✓ ***General→Display Name→Type***

*To change the group's displayed name, select **Custom**. Click the drop-down button [use the mouse to click the **Type** cell's rightmost portion] to select **Custom**.*

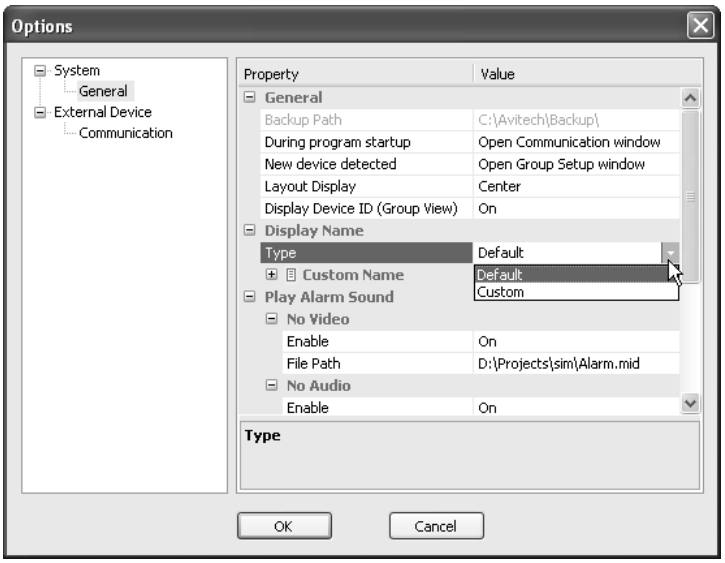


Figure 4-29 Options: "System"→"General"→"Type"

✓ ***General→Display Name→Custom Name***
Type the group's new name (up to 30 characters).

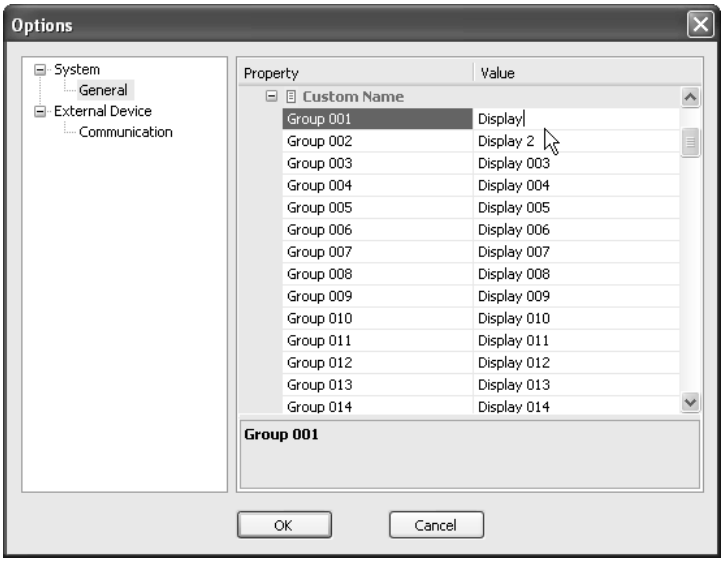


Figure 4-30 Options: "System"→"General"→"Custom Name"

✓ ***Play Alarm Sound→No Video***
*Make sure that **Play Alarm Sound** when **No Video** occurs is **Enable**d (set **On**). Click the select folder button "…" and when the **Alarm Sound** screen appears click the select folder button … to choose another alarm sound to play when no video occurs. Click **Play** to hear a sampling of the alarm sound selected. Then click **OK** to exit.*

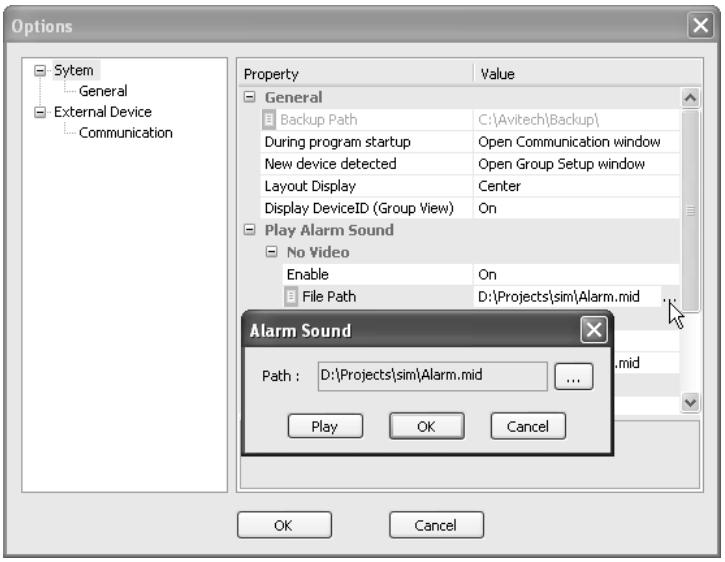


Figure 4-31 Options: "System"→"Play Alarm Sound"→"No Video"

✓ ***Play Alarm Sound→No Audio***

*Make sure that **Play Alarm Sound** when **No Audio** occurs is **Enable**d (set **On**). Click the select folder button "…" and when the **Alarm Sound** screen appears click the select folder button … to choose another alarm sound to play when no audio occurs. Click **Play** to hear a sampling of the alarm sound selected. Then click **OK** to exit.*

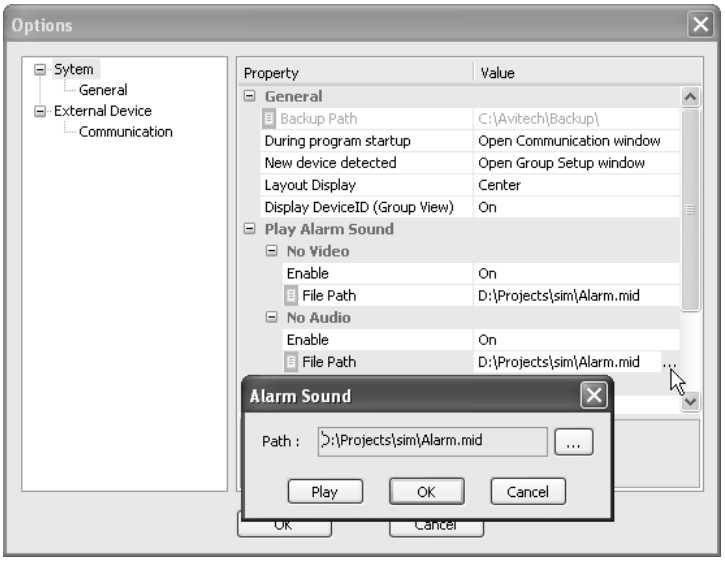


Figure 4-32 Options: "System"→"Play Alarm Sound"→"No Audio"

✓ ***Play Special Layout (No Video)***

*Make sure that **Play Special Layout** when **No Video** occurs is **Enable**d (set **On**). Click the drop-down button (use the mouse to click the **Display Type** cell's rightmost portion) to select **Quad** or **Full screen**. The following sample scenarios may occur:*

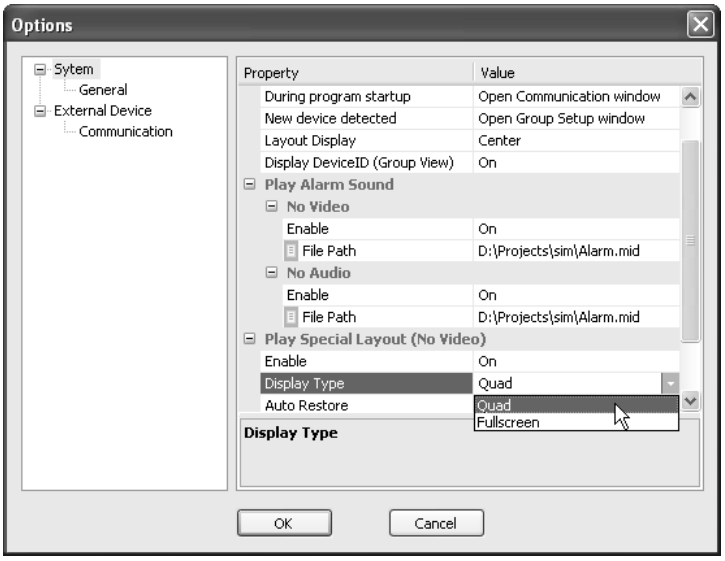


Figure 4-33 Options: "System"→"Play Special Layout (No Video)"→"Display Type"

Display Type*: *Quad/Full screen

Sample scenario 1 – a single window loses video signal
Regardless of the present monitor's window layout, the quad/full screen layout would be displayed and the single window without video signal would occupy the top-left position/full screen to warn user that the particular window has no video signal.

Sample scenario 2 – three windows lose video signal
Regardless of the present monitor's window layout, the quad layout would be displayed and the three windows without video signal would occupy the top-left, top-right, and bottom-left positions to warn the user that the three windows have lost video signal.
Or, the last detected missing video signal of the three windows would occupy the full screen to warn the user.

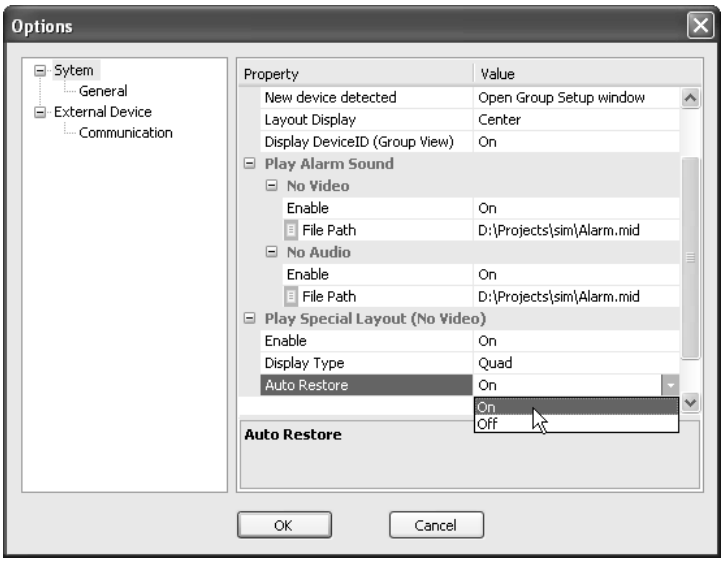


Figure 4-34 Options: "System"→"Play Special Layout (No Video)"→"Auto Restore"

Auto Restore

Sample scenario 1 – a single window loses video signal
*Allows the window layout to revert back to where it was before signal loss occurred. Click the drop-down button (use the mouse to click the **Auto Restore** cell's rightmost portion) to select **On**. When **Auto Restore** is disabled (set **Off**) then right-click the window and select **Close** to allow the window layout to revert back to where it was before signal loss occurred.*

Sample scenario 2 – window #2 has regained video signal out of the three windows that lost video signal
*Allows window #2 that has regained video signal to be removed from the screen. Click the drop-down button (use the mouse to click the **Auto Restore** cell's rightmost portion) to select **On**. When **Auto Restore** is disabled (set **Off**) then right-click the window and select **Close** to allow the window layout to revert back to what it was before signal loss occurred. For **Quad Display Type** (previous item) then window #3 would occupy the place vacated by window #2. Or, for **Full screen Display Type**, then the second-to-the-last window that lost video signal would occupy the whole screen.*

✓ ***External Device→Device Enable***

*To allow the Phoenix-Q software to get the UMD (under monitor display) data from the router (when necessary) click **External Device** and make sure that **Device Enable** is set **On**.*

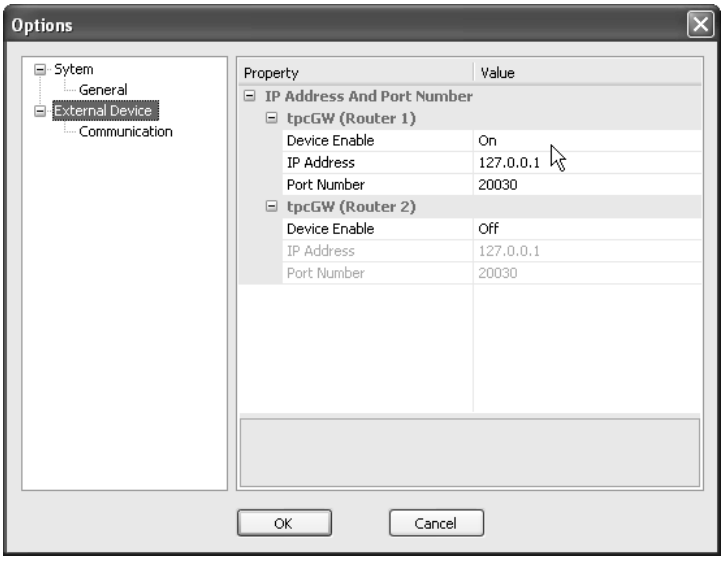


Figure 4-35 Options: "External Device"→"Communication"→"Device Enable"

✓ ***External Device→IP Address***

*Make sure that the **IP Address** corresponds to the IP address of the computer running the tpcGW utility. If not, click the IP Address button "…" and when the **IP Address** screen appears, enter the correct value. Then click **OK** to exit.*

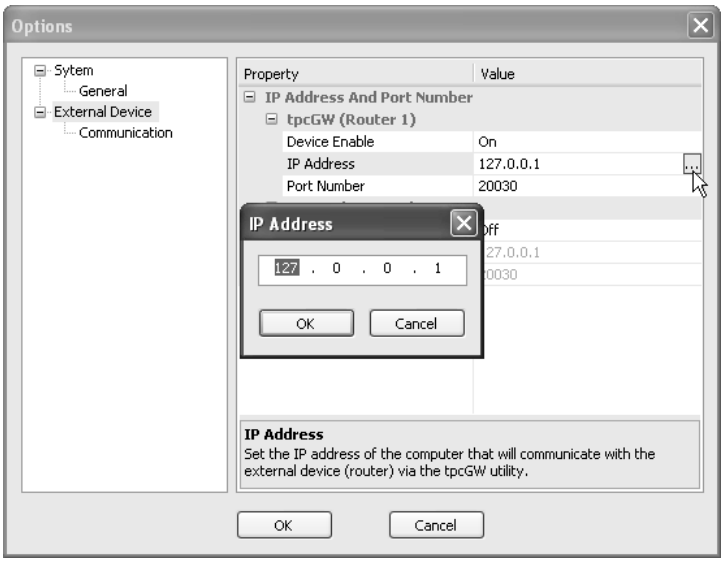


Figure 4-36 Options: "External Device"→"Communication"→"IP Address"

✓ ***External Device→Port Number***
*Make sure that the **Port Number** shown is correct. If not, enter the value directly or click the up/ down arrow button. Then click **OK** to exit the **Options** screen setup.*

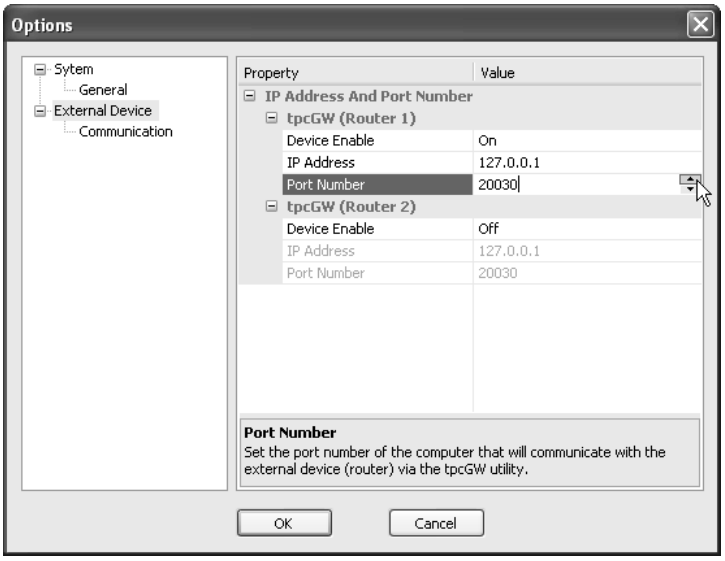


Figure 4-37 Options: "External Device"→"Communication"→"Port Number"

*Make sure the value appearing for both **IP Address** and **Port Number** must be similar to the value entered in the tpcGW utility to be able to successfully connect to the router.*

4.5 Help Menu

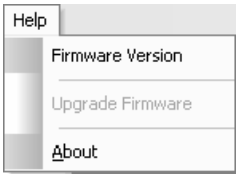


Figure 4-38 Phoenix-Q Software: Help Menu

Help Menu	
Firmware Version	Click to export as a .txt file.
Upgrade Firmware	Click **Upgrade Firmware** to bring the device's firmware up-to-date (see "Firmware Upgrade Reference Guide" for details).
About	Click **About** to see a pop-up window which displays information about the Phoenix-Q software. i.e., version number.

Table 4-4 Phoenix-Q Software: Help Menu Description

Firmware Version

*Step 1. Click **Firmware Version**.*

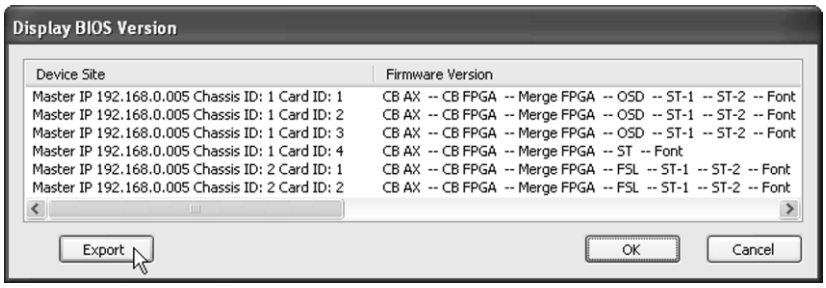

Display BIOS Version
Device Site
Firmware Version
Master IP 192.168.0.005 Chassis ID: 1 Card ID: 1 CB AX -- CB FPGA -- Merge FPGA -- OSD -- ST-1 -- ST-2 -- Font
Master IP 192.168.0.005 Chassis ID: 1 Card ID: 2 CB AX -- CB FPGA -- Merge FPGA -- OSD -- ST-1 -- ST-2 -- Font
Master IP 192.168.0.005 Chassis ID: 1 Card ID: 3 CB AX -- CB FPGA -- Merge FPGA -- OSD -- ST-1 -- ST-2 -- Font
Master IP 192.168.0.005 Chassis ID: 1 Card ID: 4 CB AX -- CB FPGA -- Merge FPGA -- ST -- Font
Master IP 192.168.0.005 Chassis ID: 2 Card ID: 1 CB AX -- CB FPGA -- Merge FPGA -- FSL -- ST-1 -- ST-2 -- Font
Master IP 192.168.0.005 Chassis ID: 2 Card ID: 2 CB AX -- CB FPGA -- Merge FPGA -- FSL -- ST-1 -- ST-2 -- Font
Export
OK
Cancel

Figure 4-39 Phoenix-Q Software: Firmware Version

*Step 2. Click **Export**.*

*Step 3. Assign a filename and click **Save** to store the data.*

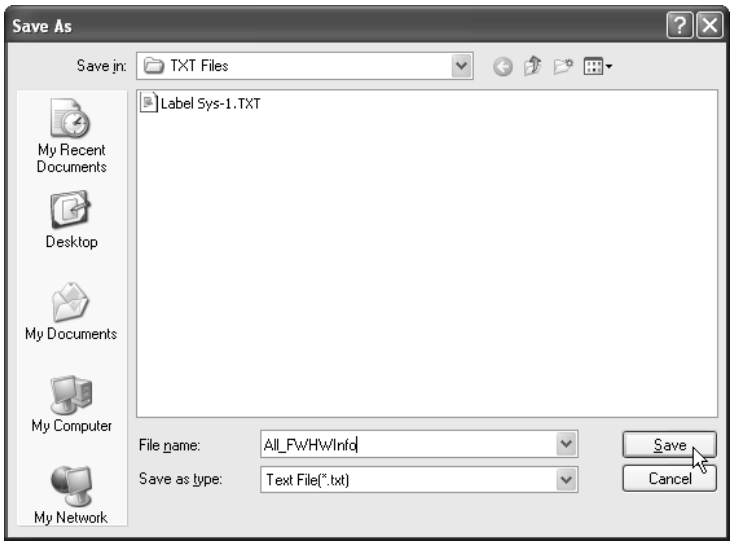


Figure 4-40 Phoenix-Q Software: Save Firmware Version Information

Upgrade Firmware: *Click **Upgrade Firmware** to bring the device's firmware up-to-date (see "Firmware Upgrade Reference Guide for Titan 9000" for details).*

Click "System"→"Disconnect" first before firmware upgrade.

About: *Click **About** to see a pop-up box showing the Phoenix-Q software information.*

Figure 4-41 Phoenix-Q Software: Version Information

5. Setting the Group/Card Properties

To set the properties of the Titan 9000, click to select the Card on the **Group View** window (left panel) and the **Properties** window (right panel) would list the parameters available for setup.

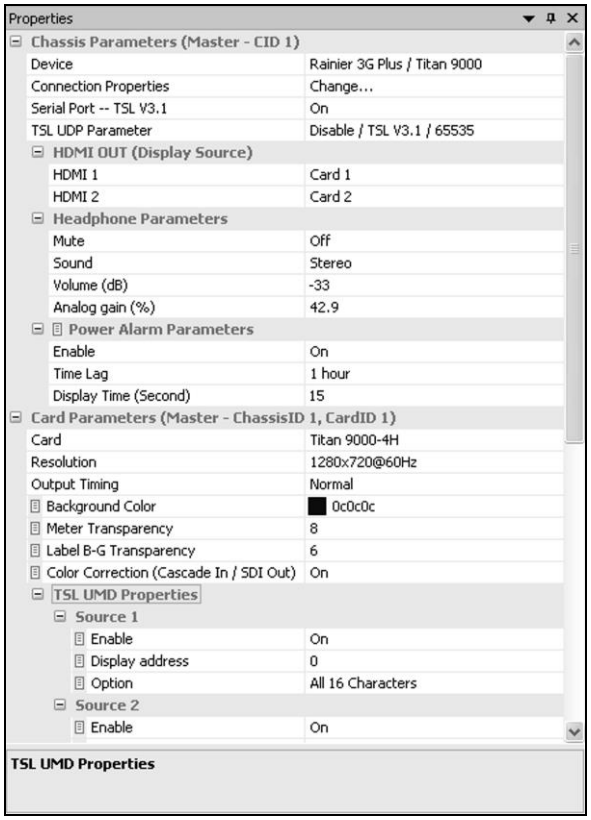


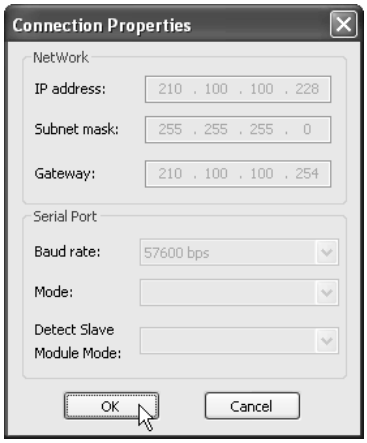
Figure 5-1 Phoenix-Q Software: Properties Window

*Some of the items appearing on the **Properties** window may or may not be available for your Titan 9000.*

Connection Properties

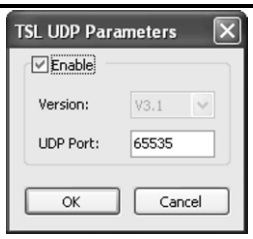
Change . . .

Set the network **Connection Properties** by entering the **IP address**, **Subnet mask**, and **Gateway**. Or, set the **Baud rate** when using the **Serial Port** to connect.



Note: This item is available for slave chassis only.

Serial Port – TSL V3.1	
On **Off**	Enable/Disable **TSL V3.1** for the configuration of the **RS-232** port with a TSL connection. *Note: The **RS-232** port is **not** for connecting to a computer for configuration (Phoenix-Q utility). Likewise, it **cannot** be used for entering any Avitech ASCII commands.* When configuring, connect the (*Master* Titan 9000) to the controlling computer via an **Ethernet** connection and then connect the (*Master* Titan 9000) **RS-232** port to the **TSL router**.

TSL UDP Parameter	
	 Enable/Disable **TSL V3.1** for the configuration of the **IP** port with a TSL connection. Make sure to enter the correct **UDP Port** (User Datagram Protocol) value that matches the connected router.

當TSL UDP Enable, Serial TSL自動設為Off

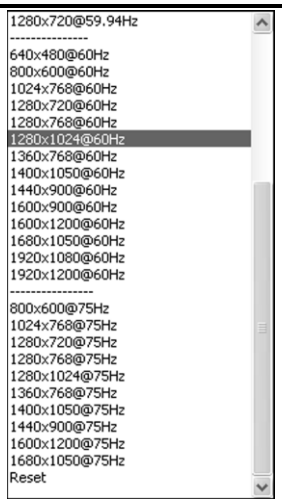
*When both **Serial Port – TSL V3.1** and **TSL UDP Parameter** are enabled, the Titan 9000 will try to connect through the **IP** port first then the **RS-232** port.*

HDMI OUT (Display Source)	
HDMI 1/2/3/4 (Card 1/2/3/4, Cascade In)	Select the display source for output to each card's **HDMI OUT** port. You can select another card's **HDMI/DVI IN** source as output to another card's **HDMI OUT** port. Or, use the source signal coming into the chassis' **CASCADE IN** port as output to a card.

Headphone Parameters	
Mute (On / Off)	Turn off the audio output coming from the headphone connected to audio output port.
Sound Stereo Mono Left Mono Right	Select whether audio output is one-sided or coming from both sides of the headphone.
Volume (dB) (–64 up to 12)	Set the volume level of audio output from headphone.
Analog gain (%) (0.0, 14.6, 28.6, 42.9, 57.1, 71.4, 85.7, 100.0)	Set the analog gain (percentage) for higher sensitivity and less noise than using only digital gain. The result: higher refresh rates, higher sensitivity and less noise.

Power Alarm Parameters	
Enable (On / Off)	Turn on the power alarm feature that is triggered when either one of the power from redundant power source is cut-off.
Time Lag (Always on, 1 5, 10, 30 minutes, 1, 2, 6, 12, 24 hours)	Set the time interval between cut-off of one of redundant power source and when power alarm is shown on screen.

Power Alarm Parameters	
Display Time (Seconds) (1 to 120)	Set the length of time that power alarm remains on screen.

Card Parameters	
Resolution Set the display resolution	 *Note: Make sure that the resolution of the input source (as background image) is the same as the resolution of the **HDMI OUT** port for video output to the monitor.* *Only 720p and 1080p 50Hz/60Hz output resolution is available when cascading.*
Output Timing Normal VESA	**Normal** output timing is designed for some brands of monitor that do not support the **VESA** standard.
Background Color	 Set the card's background color.
Meter Transparency (1 up to 8)	Use the slider to set the transparency (default is 8, no transparency) of the meter appearing on screen.
Label B-G Transparency (1 up to 8)	Use the slider to set the background transparency level (default is 8, no transparency) of the label appearing on screen.
Color Correction (Cascade In / SDI Out) (On / Off)	Turn on or off the encoder (signal in/out stage) to completely fix any color anomaly that may appear on color edge. *Note: Make sure to turn this function off when cascading with non-Rainier 3G Plus/Quad and Titan 9000 cards.*

TSL UMD Properties	(Source 1/2/3/4)
Enable (On / Off)	Allow the UMD (under monitor display) to be shown.
Display Address (0 up to 126)	Select the display address. The address should match the TSL controller's configured address connected to the router output feeding the corresponding Avitech input. Upon right-clicking **Display Address** and clicking **Quick Setting**, set the starting and ending number (**0**-**126**) to be displayed for each four sources (e.g., Set **100** as the **Start Number** for **Source 1** and set **126** as the **End Number**. Then **100** would be shown as the **Display Address** for **Source 1**, **101** for **Source 2**, and so forth.)

TSL UMD Properties	(Source 1/2/3/4)
Option First 8 Characters All 16 Characters	Select to display 8 or 16 dynamic characters (if the TSL implementation allows it).

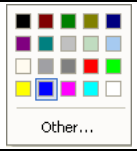
Tally	
Enable (On / Off)	Enable tally for a window or all the windows in a group.
Flash (On / Off)	Enable flashing tally for a window or all the windows in a group.
Tally1/2/3 Color (LED1/2/3)	 Select tally color of your preference. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Event	*Submenu of Tally. (Serial Event)*
LED 1/2/3 (On / Off)	Turn on or off the LED in case a serial event occurs.
Label (On / Off)	Turn on or off the label in case a serial event occurs. *Note: Tally 1/2/3 can trigger either Label or Border, but there is only one border or label. If tally 1/2/3 are triggered simultaneously, the display priority will be tally 1, tally 2, and then tally 3.*
Border (On / Off)	Turn on or off the border in case a serial event occurs.

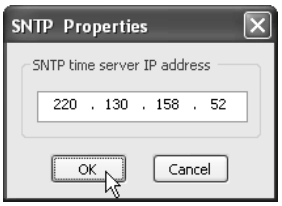
Signal Format Color	
Font Color	 Select the font color on the signal of your preference. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
B-G Color	 Select the background color on the signal of your preference. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.

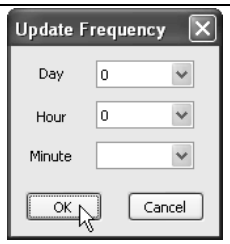
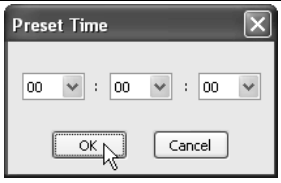
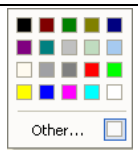
Headphone (Local)	
Enable (On / Off)	Allow audio output from headphone connected to audio output connector.
Source	Select the source of the audio signal to be played on headphones. Window 1/2/3/4 embedded audio, or pass through embedded audio.
Channel	Select the source of audio signal to be played on headphone. (**Group 1/2/3/4 Master/Slave**)

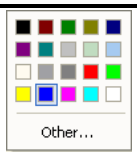
Embedded Audio	
HDMI Out Type	Select the source of embedded audio signal that will be outputted through **HDMI OUT** port; whether **Local** (from the card's **HDMI IN** port) or **Pass through embedded audio** (from cascaded signal source)
Source	Select the source of embedded audio signal; from each window's **HDMI IN** port. (Window 1/2/3/4 embedded audio)
Primary Group	Assign the primary embedded audio group to belong to group 1/2/3/4. (**Group 1**/**2**/**3**/**4**)
Secondary Group	Assign the secondary embedded audio group to belong to group 1/2/3/4.

Screen Logo	
Enable (On / Off)	Allow the display of screen logo.
Display Foreground Background	Set the screen logo to be a part of the image in the window (display in foreground) or to appear as a background on the image window.
Hide – **Full screen mode** (On / Off)	Allow the display of screen logo during full screen mode. *Note: This item is only available when you select **Foreground** in the previous item **Display**.*
Picture Upload	Click the cell's rightmost portion "open" button [...] to select the bitmap file to upload as the screen logo (e.g., 1920×1200 image would take approximately 180 seconds or more depending on the system's resource allocation). *Note: To fill the entire screen of monitor, the size (pixel) of the user logo picture must be the same as the monitor resolution. In case the size of the file is larger than the card's output resolution (see **Card Parameters→ Resolution**) the system will automatically detect and prevent it from displaying as your user logo picture.*
Position	
X **Y**	Specify the location of the screen logo appearing on screen by setting the X and Y coordinates.

Clock	
Enable (On / Off)	Allow the display of clock on screen.
Display Digital Clock Analog Clock	Select the type of clock to be displayed on screen for each group. *Note: Screen logo is not displayed when analog clock is selected.*
Analog Clock Size	Select the size of the analog clock to be displayed on screen. (**192×192**) (**224×224**) (**256×256**) (**320×320**) (**384×384**)
Border Enable (On / Off)	Allow the display of border on digital clock. *Note: This option is only available for digital clock display.*
Hide – **Full screen mode** (On / Off)	Allow the display of clock during full screen mode.
Clock Font Color	 Set the color of the font appearing on the clock. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Clock Background Color	

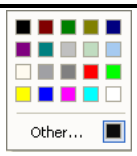
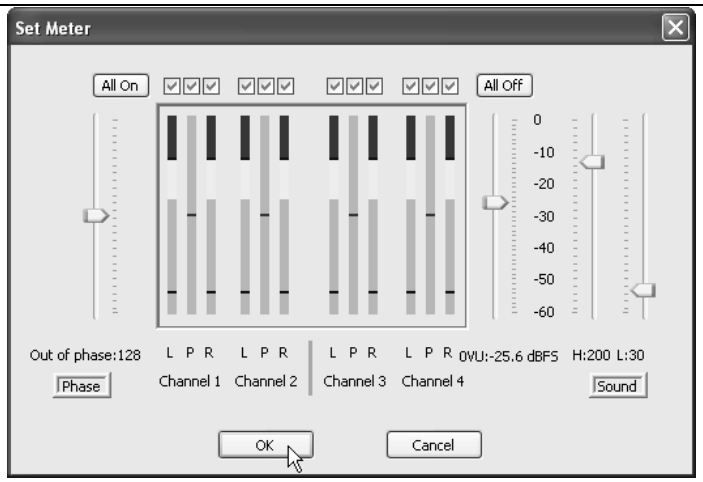
Clock	
	Set the background color appearing on the clock. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Clock B-G Transparency (0 to 8)	Set the background transparency level of the clock. **0** signifies total transparency.
Size	
X **Y**	Specify the location of the clock appearing on screen by setting the X and Y coordinates.
Width **Height**	Specify the size of the clock appearing on screen by setting the **Width** and **Height** values.
Analog Clock Parts	
Hour/Minute/ Second Hand	 Set the color of the **Hour**/**Minute**/**Second Hand** appearing on the analog clock. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Time	
Source SNTP LTC Counter Sync to Master	Activate Time Code feature by selecting **LTC** or **Counter**. You can also synchronize the clock of the Master card by selecting **Sync to Master**. The **SNTP** Time Code feature allows the card to synchronize the clock with an external SNTP time server. The **IP** port on the rear of the chassis can control, as well as receive, Time Code information simultaneously.
SNTP Properties Change . . .	Set the **SNTP time server IP address** for synchronizing the clock with an external SNTP time server.  *Note: This item is only available when you select **SNTP** in **Source**.*
Pause (On / Off)	Allows you to pause/resume the time count. *Note: This item is only available when you select **Counter** in **Source**.*
Count (Up / Down)	Select the counting method: **Up** (forward) or **Down** (reverse). *Note: This item is only available when you select **Counter** in **Source**.*
Reset Counter	Allows you to reset the counter. *Note: This item is only available when you select **Counter** in **Source**.*
Format 12-hour 24-hour	Select the clock display format. *Note: This item is not available when you select **Counter** in **Source**.*
Display Frame (On / Off)	Enable the video's frame per second (fps) value to be shown on screen. *Note: This item is only available when you select **LTC** in **Source**.*
Daylight Saving Time (On / Off)	Enable the Daylight Saving Time function. *Note: This item is not available when you select **Counter** in **Source**.*

Clock	
Time Zone	Specify the desired time zone shown on a particular monitor. *Note: This item is not available when you select **Counter** in **Source**.*
Broadcast Sync Time (On / Off)	Allows the card to synchronize the clock with an external SNTP time server. *Note: This item is only available when you select **SNTP** in **Source**.*
Sync Time (Day:Hour:Minute)	 Set the frequency of update. *Note: This item is only available when you select **SNTP** in **Source**.*
Preset Time	
Select Index (For Counter)	Select which index preset time to use. (**1**/**2**/**3**/**4**/**5**/**6**/**7**/**8**) *Note: This item is only available when you select **Counter** in **Source**.*
Index 1/2/3/4/5/6/7/8 Change . . .	 Set the preset time displayed for each input source. *Note: This item is only available when you select **Counter** in **Source**.*
Label:Clock	
Display (On / Off)	Allow the display of the clock's label (default label is "Clock").
BMP Label (On / Off)	Allow the display of universal fonts for the on screen clock.
Text	Change the content of label string by directly typing.
Size 1/2/3/4	Specify the clock label's size.
Label Font Color	 Specify the clock label's font color. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/ **Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.

Clock	
Label Background Color	 Specify the clock label's background color. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.

*The following table shows the **Properties** setting for each window in the Titan 9000.*

Window	
Enable (On / Off)	Show or hide the selected window on the monitor. Upon selecting **Off**, the hidden window will appear on the **Available Windows** panel (see below). To show the window again just drag the icon into the main screen (you can also drag multiple windows).
Display Signal Format (On / Off)	Allow the display of window's input signal format.
Size	
X **Y**	Specify the location of the window appearing on screen by setting the **X** and **Y** coordinates.
Width **Height**	Specify the size of the window appearing on screen by setting the **Width** and **Height** values. You can directly input the value, use the left/right button (**Width**) and up/down button (**Height**), as well as the keyboard's **Ctrl** + left/right arrow (**Width**) and **Ctrl** + up/down arrow (**Height**) keys. *Note: To prevent distortion on the window's image (for "interlaced" input signal), make sure the height of the image (excluding label and border) **IS NOT** smaller than one-half of the vertical active region of input source (e.g., if resolution is set at 1080i 50Hz then the image's height must not be less than 540 pixels)*
Lock Position (On / Off)	Lock or unlock the position of the window appearing on screen.
Label	
Display (On / Off)	Show the label appearing on the window. Keep in mind that each window supports one line of text.
Display Type	
Destination Name (D-Name)	Display the destination name.
UMD	Display the under monitor display.
D-Name / UMD	Display both the destination name and under monitor display.
BMP Label (On / Off)	Allow the use of universal fonts for the window's on screen label.
Destination Name	Input the text string appearing on label of the window (up to 32 characters).
Size (1/2/3/4)	Specify the window's label size.

Window	
Font Color	 Specify the window label's font color. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Background Color	Specify the window label's background color. Click **Others** for more color choices (**Standard** tab) or customize the color (**Custom** tab) by setting the **Hue**/**Saturation**/**Luminance** as well as the **Red**/**Green**/**Blue** values.
Fill Background (On / Off)	Allow the label background to fill the entire width of the window.
Position (Top / Bottom)	Place the label on top/bottom of the window.
Outside (On / Off)	Place the label outside the window.
Aspect Auto Detect	
Enable (On / Off)	Allow automatic detection of the input signal's aspect ratio.
Fit Window Size (On / Off)	Upon selecting **On**, the image will fit the window size.
Meter	
Meter Enable (On / Off)	Allow the audio meter for the particular window to appear on screen.
Layout and Alarm Trigger Change . . .	 The Titan 9000 is capable of displaying embedded audio as VU (volume unit) meters inside the video window. Embedded audio is divided into four groups, with a master and secondary channel for each group. This allows you to display the left and right VU meter of either the master or secondary channel on the left and right side of the window just as the menu depicts. Adjust the **Phase** (**Out of phase** slider), **VU** (one slider), **Sound** (**H**/**L** sliders). *Note: If there is no audio detected, you will NOT see any VU meters.*
Outside (On / Off)	Allow the location of the audio meter to be outside the video area.

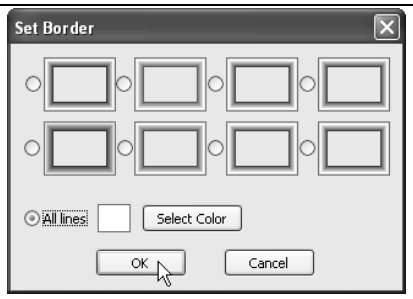
Window	
Meter Group 1 **Meter Group 2** **Meter Group 3** **Meter Group 4**	Select the audio meter's group (embedded audio).
Width	Select the audio meter's width. (**2** / **4** / **6** / **8** / **10** / **12** / **14**)
Ballistics PPM VU	Select the meter's ballistics. Meters which monitor audio levels are typically one of two varieties: VU (Volume Unit) or PPM (Peak Program Meters). Though both perform the same function, they accomplish the function in very different manners. A VU meter displays the average volume level of an audio signal. A PPM displays the peak volume level of an audio signal. For a steady state sine wave tone, the difference between the average level (VU) and the peak level (PPM) is about 3 dB. But for a complex audio signal (speech or music), the difference between the average level (VU) and the peak level (PPM) can be 10 to 12 dB. This difference between the reading of a VU meter and a PPM is known as the crest factor.
Safe Area	
Enable (On / Off)	Display the safe area marker of window. *Note: the default settings are 0% and 100% thus you will need to first create and save parameters through Phoenix-Q before enabling safe area will display a result.*
Left/Right **Top/Bottom** (0 to 100)	Freely adjust the horizontal (**Left** and **Right**) and vertical (**Top** and **Bottom**) markers. *Note: This item is only available when the previous item is set **On**.*
Window Border	
Enable (On / Off)	Display the border of window.
Width (2/4/6)	Set width of the border for window.
Default Type	 **Set Other Type:** Select the type of 3D border for the window.
Color	 Change the window border color as each pixel/line can have a different color. (**Line 1/2/3/4/5/6**)
Image Border	
Enable (On / Off)	Display the border of image.
Width (1 to 6)	Set width of the border for image.
Color	 Change the image border color.

Image Adjustment	
Brightness (–128 to 127)	Adjust the brightness quality of the input signal.
Contrast (0 to 1023)	Adjust the contrast quality of the input signal.
Alarm	
Enable (On / Off)	Activate the various alarm features.
Video Alarm	
Enable (On / Off)	Activate the video signal alarm feature.
Border	
Red Color (On / Off)	Set the image border to the color **Red** as warning.
Flash (On / Off)	Set the image border to **Flash** as warning.
Audio Alarm	
Enable (On / Off)	Activate audio loss detection to be monitored on a single channel or group.
No Audio Alarm (Single Meter) (On / Off)	Activate the alarm that is triggered when no audio is detected.
Border Red Color (On / Off)	Set the image border to the color **Red** as warning.
Flash (On / Off)	Set the image border to **Flash** as warning.
Response Time Signal In/Out (0.25 to 49.75)	Set the **Signal In/Out** alarm response time, such as when inputting the signal or change of status from “abnormal” to “normal.”

Table 5-1 Phoenix-Q Software: Setting Group/Card Properties

5.1 Copy Window Properties

*Right-click an item (with icon) on the **Properties** window (except with icon) and click the following to quickly apply the settings to –*

1. *all the windows (**Card→All**)*
2. *to a particular window (**Card→Image 1/2/3/4**)*
3. *all the cards belonging to the same (**Group**)*
4. *to the entire (**System**)*

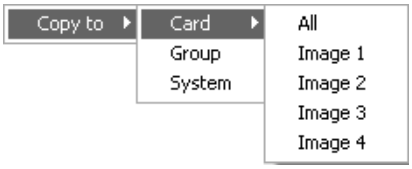


Figure 5-2 Phoenix-Q Software: Right-click Item to Quickly Apply Settings to Card/Group/System

The properties of a window can be copied to another window on the same card, as well as between cascaded chassis.

*Step 1. Right-click a window and select **Copy**.*

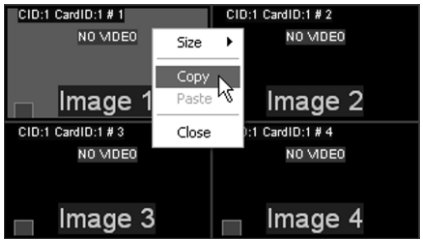


Figure 5-3 Phoenix-Q Software: Right-click Window and Click “Copy”

The properties that can be copied include the following:

- ✓ *Window size:*
  1. *width, and*
  2. *height*
- ✓ *Label:*
  1. *on/off switch*
  2. *type (ANSI or BMP label)*
  3. *font color, and*
  4. *background color*
- ✓ *Border:*
  1. *on/off switch*
  2. *width, and*
  3. *color*

*Step 2. Select a window to copy the properties to and right-click the window and then select **Paste**.*

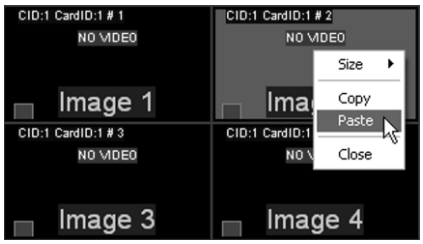


Figure 5-4 Phoenix-Q Software: Right-click Window and Click “Paste”

*You can also close a particular window by clicking **Close**. The Window would appear as an icon on the **Available Windows** pane. To activate the window again just use the mouse to drag the window into the main area.*

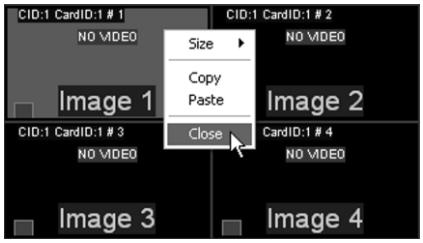
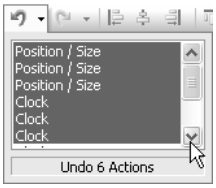


Figure 5-5 Phoenix-Q Software: Right-click Window and Click “Close”

5.2 Undo/Redo Changes

Clicking the allow you to undo the previous step; while clicking the allow you to redo the previous step that was undone.

To undo 

or redo

multiple actions click the drop-down arrow symbol beside the undo/redo button, then highlight and click the actions to be undone or redone. Click the scrollbar to highlight more than 6 actions.

The following actions will clear the list of undo/redo actions:

- ✓ *load/save preset file*
- ✓ *set display resolution*
- ✓ *group reset*
- ✓ *change group setup*
- ✓ *set to default state*

5.3 Align Windows

You can align a set of windows horizontally or vertically. You can choose how you want the windows to line up in relation to each other. For example, clicking the **Align Right** button (

) aligns the right edges of the windows with each other.

To align a set of windows horizontally/vertically:

*Step 1. Select the windows by clicking the first window with the left mouse button and the succeeding windows using the keyboard's **Ctrl** key + left mouse button.*

*Other computer applications that are currently running which use the same **Ctrl** key + left mouse button hotkey may disable multiple window selection in your Phoenix-Q software. Close the other program first before using the **Ctrl** key + left mouse button in Phoenix-Q.*

Step 2. To indicate how you want the windows to line up with each other click one of the following buttons. The alignment follows the position of the last window selected.

- ✓ *top*

- ✓ *middle*

- ✓ *bottom*

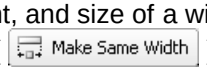
- ✓ *left*

- ✓ *center*

- ✓ *right*

*To undo alignment of windows just click the **Undo** button repeatedly according to the number of windows that were aligned with the last selected window.*

5.4 Copy Window Size

This function allows a set of windows to copy the width, height, and size of a window appearing on screen. For example, clicking the **Make Same Width** button () would cause the selected windows to have the same width.

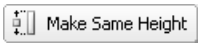
To modify the window size:

*Step 1. Select the windows by clicking the first window with the left mouse button and the succeeding windows using the keyboard's **Ctrl** key + left mouse button.*

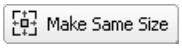
*Other computer applications that are currently running which use the same **Ctrl** key + left mouse button hotkey may disable multiple window selection in your Phoenix-Q software. Close the other program first before using the **Ctrl** key + left mouse button in Phoenix-Q.*

Step 2. To indicate how you want the windows to appear on screen, click one of the following buttons. The window's size will follow the width/height/size of the last window selected.

✓ *copy width*

✓ *copy height* 

*To prevent distortion on the window's image (for "interlaced" input signal), make sure the height of the image (excluding label and border) **IS NOT** smaller than one-half of the vertical active region of input source (e.g., if resolution is set at 1080i 50Hz then the image's height must not be less than 540 pixels).*

✓ *copy size* 

*To undo window's size modification just click the **Undo** button repeatedly according to the number of windows that were modified except the last selected window.*

*By default the main display area of your Phoenix-Q program is shown at a **50 %** magnification; meaning the entire layout (single or multiple windows) is visible at one-half magnification within the main display area. However, you can set a custom level of magnification for viewing windows. Zoom in (**100 %**) to get a closer look at image detail; zoom out to (**25 %**) view a larger portion of the image or the entire image.*

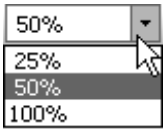


Figure 5-6 Phoenix-Q Software: Set Custom Level Magnification for Viewing Windows

5.5 Start/Stop Alarm Sound and Special Layout

Before starting or stopping playing of alarm sound when no video or no audio occurs; as well as display of special screen layout when no video occurs, make sure to enable the feature. To find out click **System→Options** on the Phoenix-Q software's drop-down menu.

The highlighted items must be set at **On**.

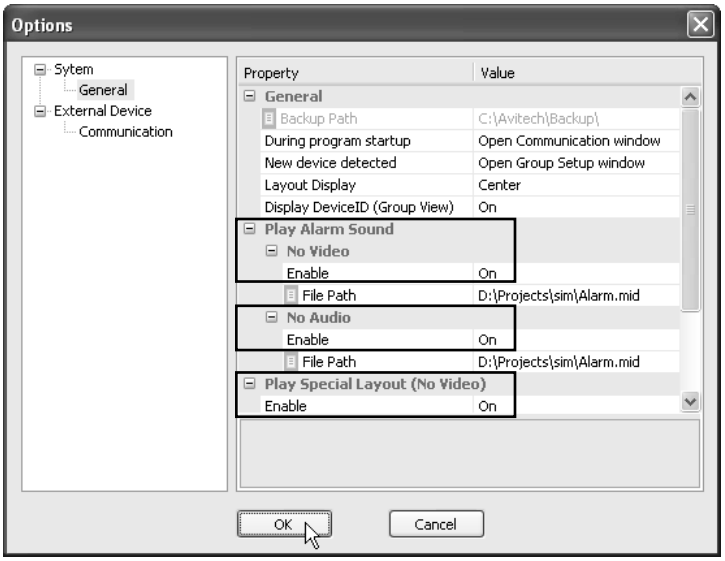


Figure 5-7 Phoenix-Q Software: Enable Alarm Sound

Otherwise, the icons would be disabled (grayed-out). Click the first icon to activate alarm sound alert when either **No Video** or **No Audio** occurs. Also, click the third icon to activate special screen layout alert when **No Video** occurs.

Figure 5-8 Phoenix-Q Software: Enable No Video/Audio Alarm Sound

When an alarm sounds and you want to shut it off click the second icon.

Figure 5-9 Phoenix-Q Software: Shut Off Alarm Sound

When the special screen layout alert occurs and you want to deactivate it, click the last icon. Notice that when the special screen layout alert occurs, many functions on the Phoenix-Q software are disabled (e.g., **Group View** window, **Properties** window, main layout area move or resize window, etc).

Figure 5-10 Phoenix-Q Software: Shut Off Special Screen Layout Alert

5.6 Setting Group Parameters

The settings here only affect the cards included in a particular group. Upon right-clicking a particular Group # (e.g., **Group 001**) heading portion the following menu will appear.

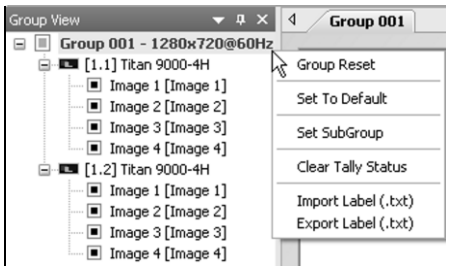


Figure 5-11 Phoenix-Q Software: Set Group Parameter

✓ *Click **Group Reset** to refresh all cards belonging to the same group.*

✓ *Click **Set to Default** to return all cards belonging in the same group to its default settings:*
- ✓ *1920×1080 output resolution, 60 Hz vertical frequency*
- ✓ *Normal output timing*
- ✓ *Default preset layout (8 windows per row; total number of rows depending on number of cards on each chassis as well as the total number of cascaded chassis if any)*
- ✓ *Label is set "On" (background color "dark grey" with RGB value of 31; font color "grey" with RGB value of 200; fill background set "On," transparency set 6)*
- ✓ *Border is set "On" (2 pixel in width, line 1 and line 2 color "grey" with RGB value of 58)*
- ✓ *Clock is set "Off"*
- ✓ *Meter is set "Off"*
- ✓ *Alarm is set "Off"*
- ✓ *Signal Type is set "Off"*

✓ *Click **Set Subgroup**.*

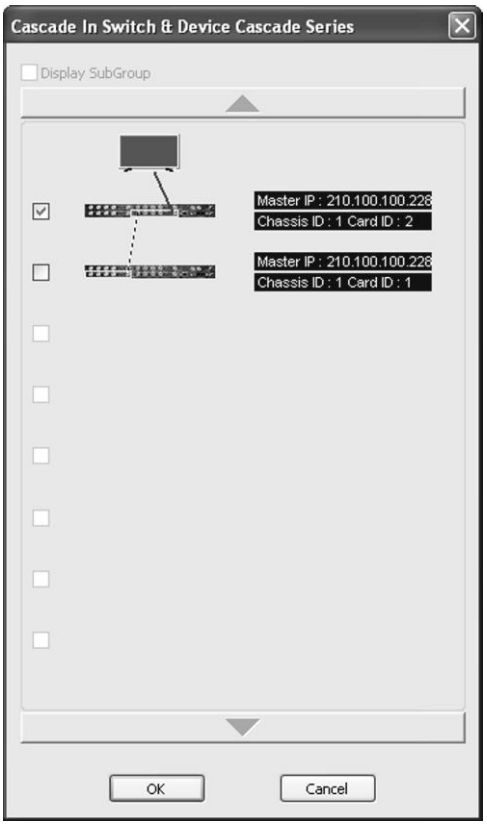

Cascade In Switch & Device Cascade Series
Display SubGroup
Master IP : 210.100.100.228
Chassis ID : 1 Card ID : 2
Master IP : 210.100.100.228
Chassis ID : 1 Card ID : 1
OK
Cancel

Figure 5-12 Phoenix-Q Software: “Cascade In Switch & Device Cascade Series” Window

Click the checkbox to enable or disable "cascade in" for each ID number. Use the mouse to change the ID number designation only (by dragging using the symbol); this will not affect the actual physical connection of the Titan 9000.

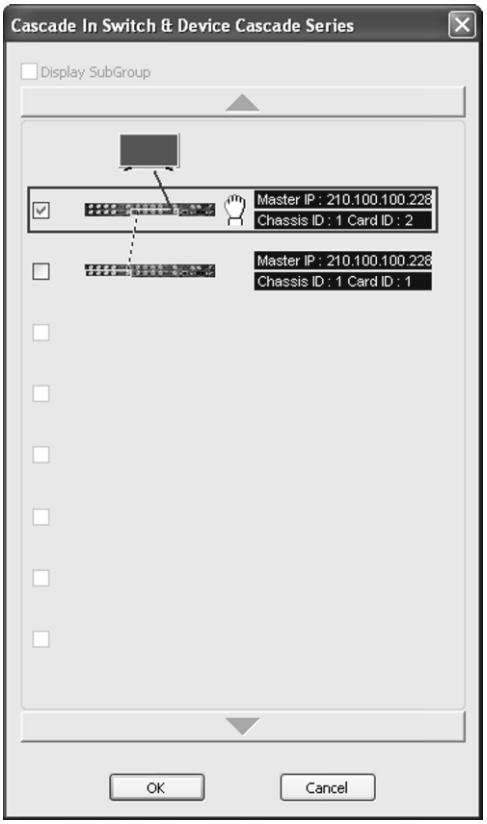

Cascade In Switch & Device Cascade Series
Display SubGroup
Master IP : 210.100.100.228
Chassis ID : 1 Card ID : 2
Master IP : 210.100.100.228
Chassis ID : 1 Card ID : 1
OK
Cancel

Figure 5-13 Phoenix-Q Software: Drag to Change the ID Number Designation Only

Make sure the ID number designation must match the actual physical connection of the cascaded Titan 9000.

✓ *Click **Clear Tally Status** to clear up any tally that has appeared on screen.*

✓ ***Import Label (.txt)** from/**Export Label (.txt)** to be edited externally. The most convenient way is to export the file (label) as:*
- ✓ ***Label** (**ANSI** – up to 30 characters; can contain the English characters A–Z, a–z, 0–9), or*
- ✓ ***BMP Label** (Unicode – up to 15 characters; useful for displaying text other than the English language) **txt** file*

1. *Settings here will only affect the labels of the windows within the selected Group. However, the process of editing and importing the labels is the same as described on page 33.*
   Note: To change all the labels in the System see page 33.
2. *These items are only available when the computer is connected to the Titan 9000.*

5.7 Briefing

This function allows you to cycle between presets for a slideshow effect.

*Step 1. Right-click the title bar and when the menu appears, click **Add**.*

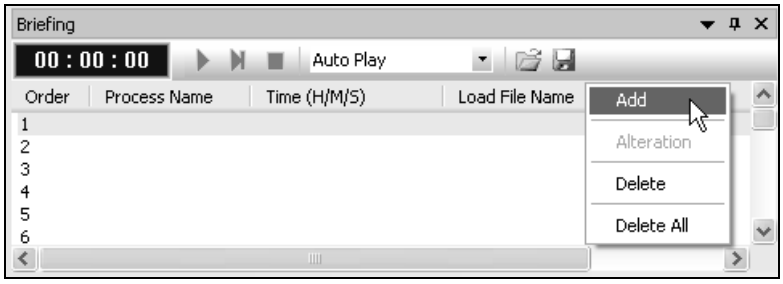


Figure 5-14 Briefing: Click “Add”

*Step 2. Enter the **Process name**, specify the **Time (H : M : S)**, then select the previously saved preset **File**. Click **OK** to continue. Continue adding new processes as necessary.*

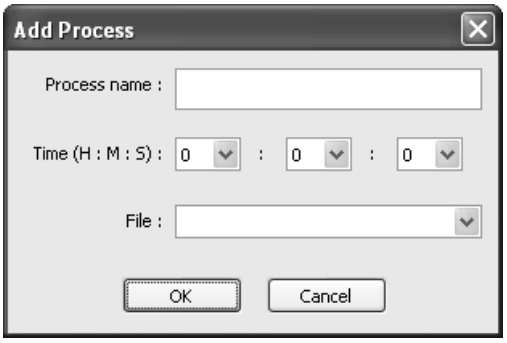


Figure 5-15 Phoenix-Q Software: “Add Process” Window

*Step 3. On the drop-down menu you can select **Auto Play**, **Auto Play (Repeat)**, **Manual**, or **Manual (Repeat)**. Click play ▶ to start viewing the slideshow.*

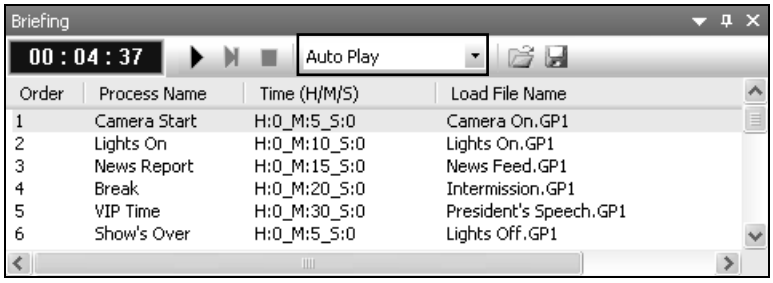


Figure 5-16 Briefing: Select Type of Playback

5.8 Log Window

Aside from letting you view the various system messages in Phoenix-Q, you can also export the log messages as a text file. This is most helpful when monitoring incidences of video loss/freeze/black and audio high/low/lost detection.

*Step 1. Right-click anywhere inside **Log Window** and when the menu appears, click **Export**.*

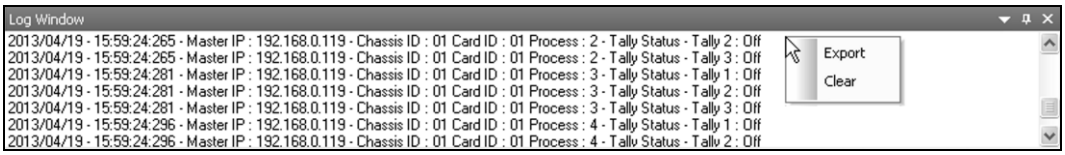

Log Window
2013/04/19 - 15:59:24:265 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 2 - Tally Status - Tally 2 : Off
2013/04/19 - 15:59:24:265 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 2 - Tally Status - Tally 3 : Off
2013/04/19 - 15:59:24:281 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 3 - Tally Status - Tally 1 : Off
2013/04/19 - 15:59:24:281 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 3 - Tally Status - Tally 2 : Off
2013/04/19 - 15:59:24:281 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 3 - Tally Status - Tally 3 : Off
2013/04/19 - 15:59:24:296 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 4 - Tally Status - Tally 1 : Off
2013/04/19 - 15:59:24:296 - Master IP : 192.168.0.119 - Chassis ID : 01 Card ID : 01 Process : 4 - Tally Status - Tally 2 : Off
Export
Clear

Figure 5-17 Briefing: Click “Add”

*Step 2. Assign a filename and click **Save** to store the data.*

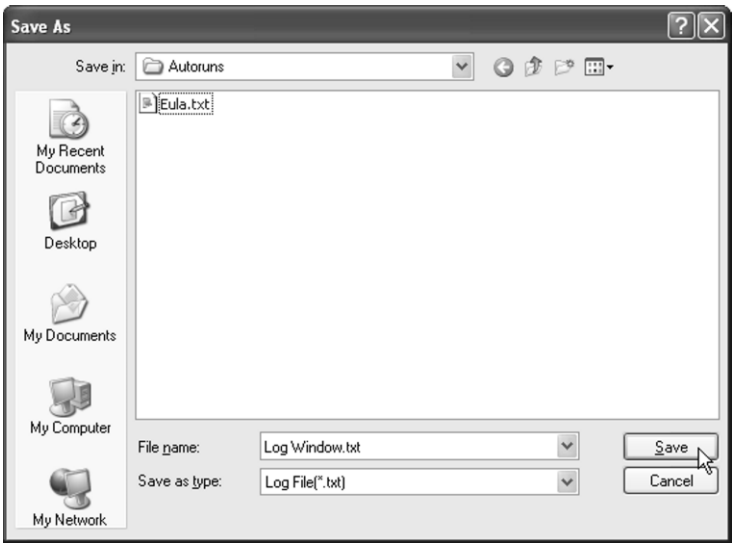


Figure 5-18 Phoenix-Q Software: Save Log Window Information

You can also refer to your computer’s hard drive (C:/Avitech/Backup/Backup_date_time/Log/ folder) for various system log messages text file.

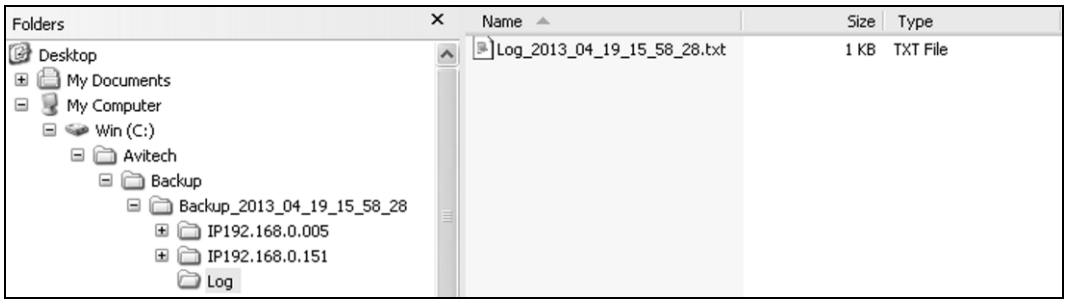


Figure 5-19 Phoenix-Q Software: Location of Auto-save Log File

Appendix A Using the LCD Panel

This chapter discusses the process of using the LCD panel to set up Titan 9000.

The LCD panel allows for control of the Titan 9000 including; output resolution and signal adjustment, user logo, audio (headphone and HDMI), cascade, HDMI output source, preset file, color correction, clock, window display parameters, alarm, aspect ratio adjustment, safe area and operational status report.
The LCD panel consists of 5 buttons:

▲ Go to previous selection (up arrow button)
▼ Go to next selection (down arrow button)
◀ Move to left of present cursor position (left arrow button)
▶ Move to right of present cursor position (right arrow button)
SET Enter the next level of a menu, or select the currently highlighted item.

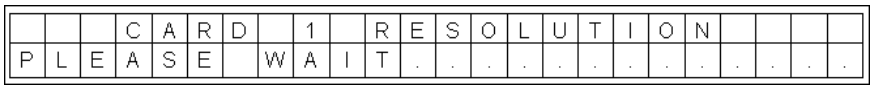


Figure A-1 LCD Panel: Busy State

1. *When the busy state "**PLEASE WAIT . . . .**" message is displayed on the LCD panel (see sample screen above), **DO NOT** disconnect or connect any signal cables as, a fault may occur.*
2. *Also, **DO NOT** change any of the incoming signal's display resolutions while the Titan 9000 is in the busy state.*

A.1 Welcome Screen

Upon starting up the LCD panel, the welcome screen is shown for a few seconds.

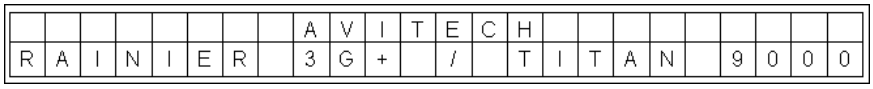


Figure A-2 LCD Panel: Welcome Screen

Then the following default screen is displayed.

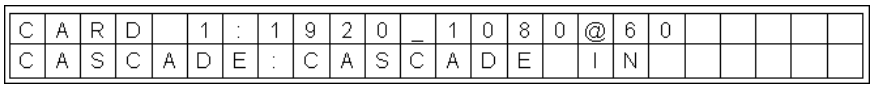


Figure A-3 LCD Panel: Default Initial Screen

This screen displays the card's default settings.
1. *First line (video): Display the first card's current video output settings.*
2. *Second line (cascade method):*
   *The default cascade method for Titan 9000 is **Cascade In**.*

Settings made through the LCD panel will be saved automatically upon turning off power to the Titan 9000.

A.2 Navigating the Main Menu

1. Press the SET button from the default initial screen to enter the main menu.
2. Use the buttons on the front panel to navigate: (▲ / ▼ / ◀ / ▶ / SET)
3. The following sections are setup items on the main menu, details of each are in the following tables, respectively:

Resolution	
Output	Select the desired display resolution and frequency. ❖ ***1920×1200 @ 50, 60*** *(Hz)* ❖ ***1920×1080 @ 50, 60*** *(Hz)* ❖ ***1680×1050 @ 50, 60, 75*** *(Hz)* ❖ ***1600×1200 @ 50, 60, 75*** *(Hz)* ❖ ***1440×900 @ 50, 60, 75*** *(Hz)* ❖ ***1400×1050 @ 50, 60, 75*** *(Hz)* ❖ ***1360×768 @ 50, 60, 75*** *(Hz)* ❖ ***1280×1024 @ 50, 60, 75*** *(Hz)* ❖ ***1280×768 @ 50, 60, 75*** *(Hz)* ❖ ***1280×720 @ 50, 59.94, 60, 75*** *(Hz)* ❖ ***1024×768 @ 50, 60, 75*** *(Hz)* ❖ ***800×600 @ 50, 60, 75*** *(Hz)* ❖ ***640×480 @ 60*** *(Hz)*
Exit	Exit the output resolution and frequency setup menu.

Table A-1 Output Resolution and Frequency

Output Timing	
Standard	**Normal** **VESA**: select this for HDMI/DVI output.
Exit	Exit the output timing setup menu.

Table A-2 Output Timing

User Logo	
Display	**On**: enable the user logo display feature. Foreground can only be selected upon turning on user logo (default setting is **Background**). ❖ ***Background*** ❖ ***Foreground*** **Off**: disable the display of the user logo. *Note: To fill the entire screen of monitor, the size (pixel) of the user logo picture must be the same as the monitor resolution. In case the size of the file is larger than the card's output resolution (see **Output Resolution**) the system will automatically detect and prevent it from displaying as your user logo picture.*
Exit	Exit the user logo setup menu.

Table A-3 User Logo

Audio	
Headphone	**On**: listen to the audio output via headphones. ❖ ***Mute****: disable the audio output via headphone feature.* ✓ ***On/Off*** ❖ ***Sound****: select the left/right/both channels.* ✓ ***Stereo*** ✓ ***Mono L*** *(left)* ✓ ***Mono R*** *(right)* ❖ ***Volume****: adjust the volume.* ✓ ***–102*** *up to* ***12*** *(level)* ❖ ***Source****: select from the available 4 source windows or pass through.* ✓ ***Window 1/2/3/4*** ✓ ***Pass Through*** ❖ ***Channel****: select the group and master/slave channels.* ✓ ***Group 1 Master/Slave*** ✓ ***Group 2 Master/Slave*** **Off**: disable the audio output via headphones.
Exit	Exit the headphone audio setup menu.

Table A-4 Audio (Headphone)

Audio	
HDMI	Audio signal from HDMI input ❖ ***Source****: select from the available 4 source windows or pass through.* ✓ ***Window 1/2/3/4*** ✓ ***Pass Through*** ❖ ***Primary Group****: select the primary group for HDMI audio.* ✓ ***Group 1/2/3/4*** ❖ ***Secondary Group****: select the secondary group for HDMI audio.* ✓ ***Group 1/2/3/4***
Exit	Exit the HDMI audio setup menu.

Table A-5 Audio (HDMI)

Cascade	
Status	**On**: enable the card's cascade feature. ❖ ***SOURCE****: select the card's (1/2/3/4) cascade source.* ✓ ***Card 1/2/3/4*** ✓ ***Cascade In*** *(default for Titan 9000)* **Off**: disable the card's cascade feature. *Note: Make sure that the cascaded card must belong to the same group and have the same resolution.*
Exit	Exit the cascade setup menu.

Table A-6 Cascade

Output	
HDMI	Signal to HDMI output (1080p or 720p 50/60 Hz) ❖ ***Source****: select the card's (1/2/3/4) HDMI output source.* ✓ ***Card 1/2/3/4*** ✓ ***Cascade In***
Exit	Exit the HDMI output setup menu.

Table A-7 HDMI Output

Auto Layout	
	Press the SET button to rearrange the windows layout appearing on the monitor. ❖ ***2×2*** *layout if only 1 card in the chassis* ❖ ***3×3*** *layout if only 2 cards in the chassis* ❖ ***4×4*** *layout if only 3 cards in the chassis* ❖ ***4×4*** *layout if 4 cards in the chassis*

Table A-8 Automatic Window Layout

Preset File	
Action	User created preset file. ❖ ***Load Preset****: recall from the previously saved preset file.* ❖ ***Save Preset****: save the current parameters as a preset file (preset.GPx). The filename (preset) can be up to 18 characters in length, while the "x" in "GPx" would be assigned automatically based on the current group number (1 up to 99).* *Use the ▲ / ▼ buttons to scroll through the available ASCII characters for use as filename.* *A quick press of the ◀ button moves the cursor one character to the left, while a long press deletes the character to the left of the current cursor position.* *Pressing the ▶ button moves the cursor one character to the right. Upon reaching the last character, a space will be added.* *Note: Up to 16 preset files can be assigned per card/group.* ❖ ***Save Current Setting****: saves the current parameters as a "latest" system file to be loaded the next time the Titan 9000 is turned on.* *Note: This action is similar to the automatic system parameter save when quitting the Phoenix-Q program.*
Exit	Exit the preset file setup menu.

Table A-9 Preset File

Color Correction	
Status	**On:** enable the color correction feature. **Off:** disable the color correction feature.
Exit	Exit the color correction setup menu.

Table A-10 Color Correction

Clock	
Status	**On:** enable the clock to be displayed on screen. **Off:** disable the on screen clock display.
Exit	Exit the clock setup menu.

Table A-11 Clock

Window Close	
Status	**On**: close the selected window. **Off**: window appears on screen (default setting is **ON**).
Exit	Exit the close window menu.

Table A-12 Window Close

Full Screen	
Status	**On**: allow the selected window to appear in full screen mode (default setting is **OFF**). **Off**: window appears in its present configuration.
Exit	Exit the window full screen menu.

Table A-13 Window Full Screen

Signal Format	
Status	**On**: display the window's input signal format. **Off**: disable the display of the window's input signal format.
Exit	Exit the signal format setup menu.

Table A-14 Window Signal Format

Meter	
Status	**On**: display the audio meter for the particular window. **Off**: disable the display of the window's audio meter.
Exit	Exit the meter setup menu.

Table A-15 Window Meter

Label	
Status	**On**: display the label for the particular window. ❖ ***Destination Name****: input the text string appearing on label of the window (up to 32 characters).* *Use the ▲ / ▼ buttons to scroll through the available ASCII characters for use as label.* *A quick press of the ◀ button moves the cursor one character to the left, while a long press deletes the character to the left of the current cursor position.* *Pressing the ▶ button moves the cursor one character to the right. Upon reaching the last character, a space will be added.* ❖ ***Position*** ✓ ***Bottom*** ✓ ***Top*** **Off**: disable the display of the window's label.
Exit	Exit the label setup menu.

Table A-16 Window Label

Alarm	
Status	**On**: turn on the alarm feature for the particular window. ❖ ***Video Alarm****: activate the alarm that is triggered when no video detected.* *Note: analog input signal is not supported.* ✓ ***On/Off*** ❖ ***Audio Alarm****: activate the alarm that is triggered when no audio is detected.* ✓ ***On/Off*** **Off**: disable the alarm feature of the window.
Exit	Exit the alarm setup menu.

Table A-17 Window Alarm

Window Border	
Status	**On**: display the border for the particular window. **Off**: disable the border of the window.
Exit	Exit the window border setup menu.

Table A-18 Window Border

Image Border	
Status	**On**: display the border for the particular image. **Off**: disable the border of the image.
Exit	Exit the image border setup menu.

Table A-19 Image Border

Aspect Auto Detect	
Status	**On**: allow automatic detection of the input signal's aspect ratio. **Off**: disable automatic detection of the input signal's aspect ratio feature.
Exit	Exit the aspect automatic detection setup menu.

Table A-20 Window Automatic Aspect Ratio Detection

Safe Area	
Status	**On**: display the safe area marker of window. *Note: the default settings are 0% and 100% thus you will need to first create and save parameters through Phoenix-Q before enabling safe area will display a result.* **Off**: disable the safe area marker of the window.
Exit	Exit the safe area setup menu.

Table A-21 Window Safe Area

Image Adjustment	
Parameters	Adjust the parameter of the image appearing in the particular window. ❖ ***Brightness****: adjust the brightness quality of the input signal.* ✓ ***–128*** *to* ***127*** ❖ ***Contrast****: adjust the contrast quality of the input signal.* ✓ ***0*** *to* ***1023*** ❖ ***Default***
Exit	Exit the image adjustment setup menu.

Table A-22 Window Image Adjustment

A.3 Navigating the System Parameters Menu

Backlight	
Status	**On**: enable the LCD panel backlight. ❖ ***Idle Time****: select the time before LCD panel backlight will turn off.* ✓ ***5*** *to* ***60 Minutes*** *(adjustment in increment of 5 minutes)* **Off**: disable the LCD panel backlight (default is **On**).
Exit	Exit the image adjustment setup menu.

Table A-23 LCD Panel Backlight

LCD Panel	
Contrast	Adjust the LCD panel contrast. ❖ ***0*** *to* ***26***

Table A-24 LCD Panel Contrast

Lock LCD Panel	
Status	**On**: enable the lock LCD panel feature when a set idle time has elapsed. ❖ ***Password****: input the text string for unlocking the LCD panel (up to 7 characters).* *Use the ▲ / ▼ buttons to scroll through the available ASCII characters for use as label.* *A quick press of the ◀ button moves the cursor one character to the left, while a long press deletes the character to the left of the current cursor position.* *Pressing the ▶ button moves the cursor one character to the right. Upon reaching the last character, a space will be added.* ✓ ***–128*** *to* ***127*** ❖ ***Idle Time****: select the time between the last button in LCD panel was pressed and before it will be locked.* ✓ ***1*** *to* ***60 Minutes*** **Off**: disable the lock LCD panel feature
Exit	Exit the lock LCD panel setup menu.

Table A-25 Lock LCD Panel

In case you forgot the password for unlocking the LCD panel, just turn off power to the chassis and restart the system. The password and idle time will still be valid.

Firmware Version	
Reference	Show the various current firmware version for reference. ❖ ***CB*** *(controller board)* ❖ ***CB FPGA*** *(field-programmable gate array)* ❖ ***Cx Merge FPGA*** *(C stands for card; x the card number 1 to 4)* ❖ ***Cx OSD*** *(on screen display)* ***FPGA*** ❖ ***Cx ST-1*** *(chip 1)* ❖ ***Cx ST-2*** *(chip 2)* ❖ ***Cx Font***
Exit	Exit the firmware version setup menu.

Table A-26 Firmware Version

IP Address	
Status	Allow user to modify the following based on their Ethernet environment. ❖ ***IP Address*** ❖ ***Subnet Mask*** ❖ ***Gateway***
Exit	Exit the IP address setup menu.

Table A-27 IP Address

Dual Power	
Status	**On**: turn on the power alarm feature that is triggered when either one of the power source in redundant power supply is cut-off. **Off**: disable the dual power alarm feature.
Exit	Exit the dual power alarm setup menu.

Table A-28 Dual Power Alarm

Appendix B Setting Up Static IP

The following two methods allow Titan 9000 to be in the same network mask with the connected computer.

Method 1: Change the IP Address of the Titan 9000 Master Chassis

*Step 1. Run the Phoenix-Q software by double-clicking **Phoenix-Q.exe**.*

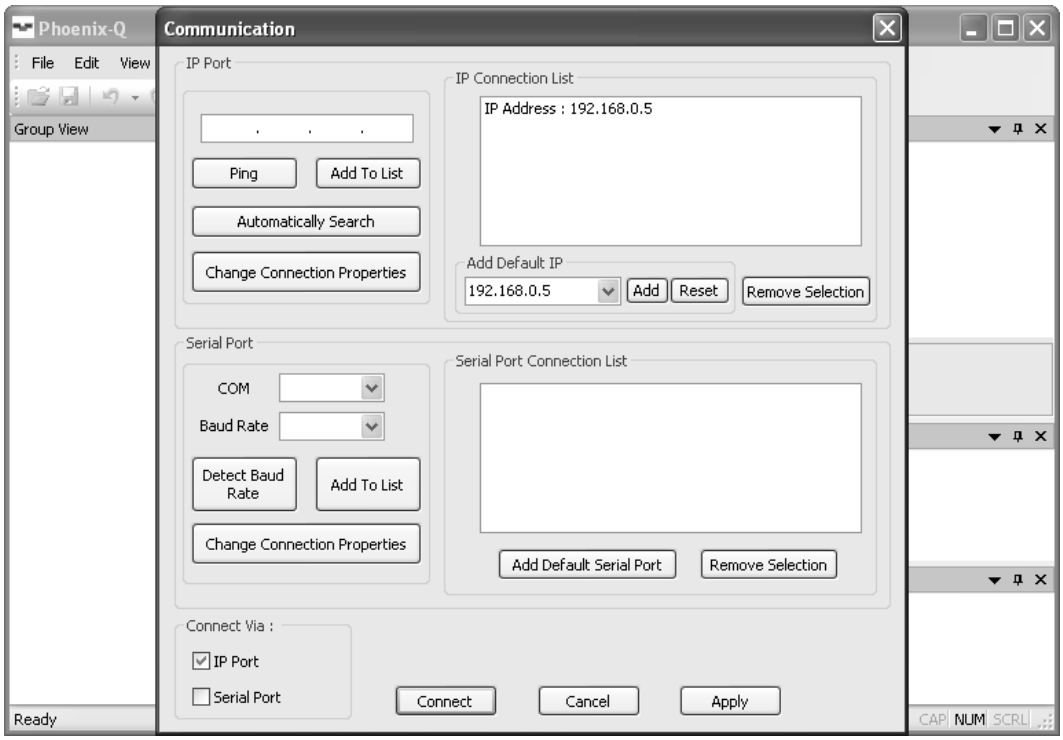


Figure B-1 Phoenix-Q Software: Initial Screen

*Step 2. Change the IP address by first clicking the default **IP Address: 192.168.0.5** entry in the **IP Connection List** window. Then, click **Change Connection Properties**.*

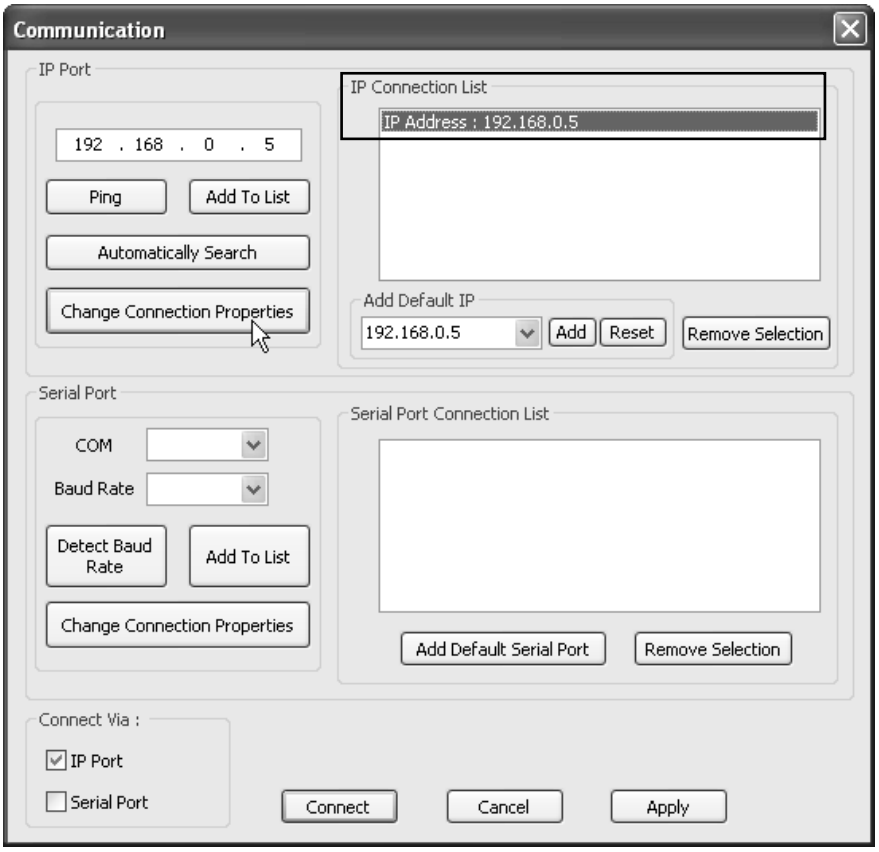


Figure B-2 Phoenix-Q Software: Click "Change Connection Properties"

*The present IP address is shown in the **IP address** field. The corresponding **Subnet Mask** and **Gateway** belonging to the present IP address is also displayed.*

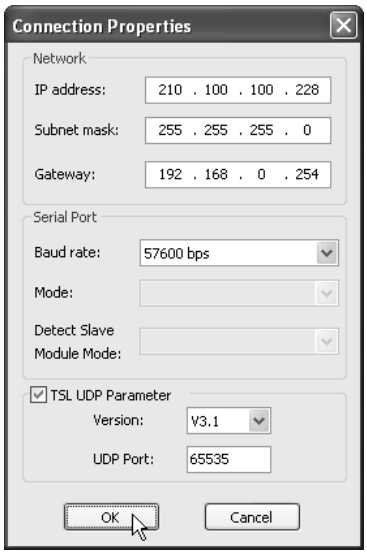


Figure B-3 Phoenix Q Software: "Connection Properties" Screen

*Step 3. Enter the new **IP address**. Edit the **Subnet Mask** and **Gateway** as necessary. Then, click **OK**. The IP address will be changed for the target device (saved to flash memory of Titan 9000).*

*Step 4. Click **OK** to exit.*

Figure B-4 IP Address Change Successful

Method 2: Change the IP Address of the Controlling Computer

For Windows XP

*Step 1. Click **Start**, and then right-click the mouse on **My Network Places**, and click **Properties**.*

*Step 2. When the next screen appears, right-click the **Local Area Connection** icon, and click **Properties**.*

*Step 3. When the next screen appears, click to highlight **Internet Protocol (TCP/IP)**, and click **Properties**.*

*Step 4. When the next screen appears, click the radio button to select **Use the following IP address:**, and then enter the **IP address: 192 . 168 . 0 . x** (where **x** is any value from **1 – 4** or **6 – 253**), and **Subnet mask: 255 . 255 . 255 . 0**.*

*Step 5. Click **OK** to exit.*

For Windows 7

*Step 1. Click **Start** and type in **Network and Sharing Center**.*

*Step 2. Click **Change Adapter Settings** on the left.*

*Step 3. Right-click the **Local Area Connection** the Titan 9000 is connected to and select **Properties**.*

*Step 4. When the next screen appears, click to highlight **Internet Protocol Version 4 (TCP/IPv4)**, and click **Properties**.*

*Step 5. When the next screen appears, click the radio button to select **Use the following IP address:**, and then enter the **IP address: 192 . 168 . 0 . x** (where **x** is any value from **1 – 4** or **6 – 253**), and **Subnet mask: 255 . 255 . 255 . 0**.*

*Step 6. Click **OK** to exit.*

Appendix C Resetting to the Factory-Default State

Step 1. Power-off the Titan 9000 by unplugging the power cord.

*Step 2. Push the number **2** dip switch located on the control card downward to the **ON** position.*

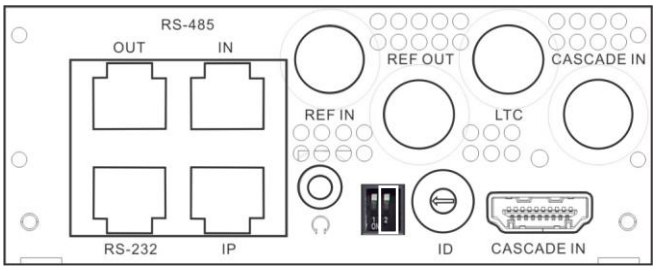


Figure C-1 Push Number 2 Dip Switch Downward

Step 3. Power-on the Titan 9000 by plugging in the power cord (make sure that power is available).

*Step 4. Push back the number **2** dip switch upward to the default position.*